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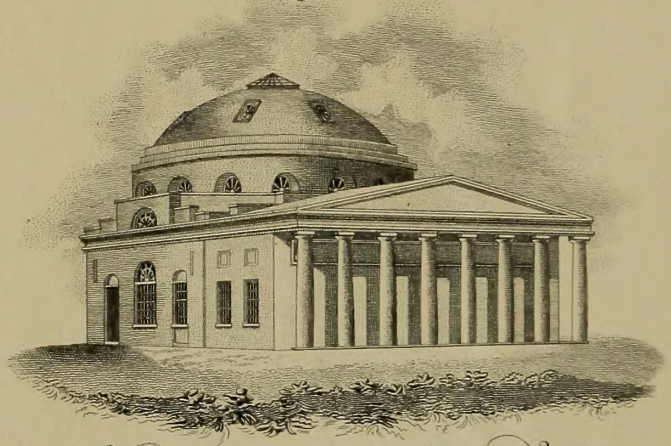

University of Maryland

Md.
Coll.

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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An

Inaugural Dissertation

on

Arachnitis

Submitted to the examination

of

The Provost Trustees and Medical Faculty

of the

University of Maryland

For the Degree of Doctor of Medicine

By Edward Johnson

of Maryland

March 1833

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To

Richard N. Allen M.D.

of

Calvert County Maryland

This essay is inscribed

As a testimony of respect

For his professional worth and talents

By his friend and pupil

The Author.

Arachnitis, or inflammation of the Arachnoid membrane.

Medical writers previous to the days of Rush seem to have entertained erroneous ideas with regard to the pathology of the disease under present consideration; as may be inferred from the inappropriate appellations by which they have designated it. Cullen and some of his contemporaries supposing that the effusion of serum, which sometimes occurs during the progress of this malady, constituted its true pathological condition: instead of regarding this phenomenon as the result of a primary morbid action previously established in the brain or its membranes, have bestowed upon it the names of hydrocephalus acutus, apoplexia hydrocephalica &c, which names are retained by many at the present day.
Rush, whose opinions in relation to the essential nature of this disease were drawn from more extensive pathological research, than those of his predecessors and rested upon a firmer basis was among the first who exposed the absurdity of considering arachnitis as a dropsical affection, and the danger of a corresponding treatment. He considered it a subacute grade of cerebral inflammation and with more propriety called it phrenitis a
The investigations of Abercrombie also, who has written extensively upon diseases of the brain prove beyond doubt that the effusion which sometimes occurs in the disease commonly called hydrocephalus is not to be regarded

as the result of an hydropic diathesis of the system as was formerly supposed but that it is merely the consequence of inflammation which is generally seated in the arachnoid membrane, and hence the propriety of distinguishing the disease by the appellation of arachnitis. Some authors of eminence are disposed to doubt the propriety of always referring the effusion of serum in the brain to an inflamatory action: Cbala supposes that it may exist independent of that process and that it may be produced by congestion of the cerebral blood vessels or such causes as obstruct their circulation.

Arachnitis occurs most generally ~~here~~ in early life, about the period of dentition; a process which in conjunction with other causes intimately connected with the animal economy at that stage of existence, seems to favour its development. During the progress of dentition particularly, & throughout the whole period of childhood; there is a greater degree of irritability of the system than at any subsequent period, and also a greater determination of blood to the brain: the latter must necessarily take place as the consequence of the increased size of the brain at that stage of life compared with other parts of the body. A circumstance which undoubtedly increases the aptitude to the disease, for it is a pathological fact that the disposition to effusion is greatest in that part to which there is the greatest determination of blood.

Having premised the foregoing pathological remarks, the result of the careful investigations of those who have directed their attention particularly to cerebral diseases, chiefly with a view to shew that arach-

-nitis is never dependent either upon a dropsical affection of the brain nor upon a dropsical affection of the general system, but that it is strictly an inflammatory affection often terminating in effusion, I shall now proceed to enumerate the symptoms by which it is characterized

As the phenomena which accompany inflammatory action, when seated in any of the structures within the cranium are in many respects similar, and give rise to similar results, it must consequently be a matter of much difficulty, to ascertain with any great degree of certainty the precise point where the inflammation originated. Nor would such information be of any great practical value to the physician, for the same mode of treatment applies to all diseases of the brain dependent upon inflammatory action of its vessels and should be modified only in conformity to the grade of action. I shall therefore not attempt to point out any symptoms which characterize arachnoid inflammation as distinct from inflammation of other parts in juxtaposition with that membrane, but proceed to exhibit a general view of the phenomena which characterize inflammation of any of the structures within the cranium when it occurs in childhood.

The patient for a day or two before the disease is fully developed is generally languid and fretful, these symptoms are generally followed by a chilliness which is succeeded by some degree of fever, the patient often manifests an unwillingness to be moved and complains of an acute pain in the head, flushed face and an-

intolerance of light and sound. When the disease attacks young children, they are extremely restless, and often start from their sleep with sudden screams as if they had been frightened. This state of irritability of the brain says Eberle may "continue for several weeks unless some exciting cause should supervene which has a tendency to excite inflammation, such as cold, dentition, or intestinal irritation. The patient in many cases is affected with great irritability of the stomach and vomits frequently during the incipient stage of the disease. The pupils are usually contracted and highly sensible to the stimulus of light, the tongue is sometimes clean and moist at others white, the bowels are generally constipated though sometimes the reverse obtains. Abercrombie remarks that "there is no condition of the bowels which is peculiar or essential to this class of diseases". With regard to the peculiar green appearance of the stools which Cheyne and others have regarded as a diagnostic sign of inflammations of the brain; the same author observes that he considers it "as erroneous in principle, as in practice dangerous to suppose that any particular character of stools is characteristic of hydrocephalus". The foregoing symptoms are such as distinguish what writers call the first stage of the disease, or the stage of irritation. As the inflammatory action advances the symptoms are usually of a more aggravated character. The irritability of temper and restlessness now increase, and the patient is harassed with pains in the head or in the abdomen. As the disease advances the symptoms of cerebral disten-

tance become more violent, and seem to undergo remissions and sometimes subside entirely. The patient manifests the seat of the pain by frequently throwing its hands on the head. It has been remarked by some writers that one of the most characteristic marks of the disease is frequent sighing which occurs they say more generally when the inflammation is about to terminate in effusion. Delirium is another symptom which occurs towards the termination of the disease. and is usually less violent when the inflammation is seated in the arachnoid membrane, than when the other structures are affected. The pulse during this" period of the disease is irritated, quick, tense, and active, the countenance expressive of great suffering and discontent, the eyelids generally half closed and the patient has often a circumscribed flush on one or both cheeks. The retching and vomiting are generally increased particularly when the patient attempts to assume an erect position. These are the principal symptoms which mark the inflammatory, or second stage of the disease, which succeeded by third in which the phenomena that occur are considerably modified in their character and denote cerebral oppression. In this stage the delirium becomes more constant, the countenance expressive of surprise and wildness or stupor, the pupils are either dilated or contracted and constant somnolency occurs which continues until it terminates in a complete state of coma. While the patient is in this somnolent condition the pulse is sometimes irregular but generally it is slow and full. This state is sometimes succeeded by symptoms of paralysis, when the pulse generally becomes more fre-

quent and smaller and towards the fatal termination of the disease there is more or less hemiplegia, coma and convulsions. The disease sometimes assumes an intermittent form and at others commences with the most violent convulsions without any premonitory febrile irritation. With regard to the condition of the liver in arachnitis there exists a considerable diversity of opinion among medical writers. It is the opinion of Ebele that the liver sympathizes generally with the brain in this disease He remarks that during the forming stage there is usually a deficiency of bile, but that in its advanced periods the bile is not only more copious but also more vitiated in its quality" and that the mixture of the vitiated bile with the Contents of the bowels gives that peculiar colour to the evacuations which attracted the attention Cheyne. If such evacuations as have just been alluded to, were the necessary consequence of this disease and were invariably present, we might perhaps with more propriety conjecture that the liver was generally affected ~~in this disease~~ but as this is not the case I should be more disposed to Hogard the implication of that organ during the progress of arachnitis as owing to accidental causes such ~~as~~ as peculiar localities Climate &c.

The causes which contribute to the production of arachnitis are numerous many of which are exceedingly obscure. Some authors affirm that there often exists a hereditary predisposition to this disease, It has also been supposed that a scrofulous diathesis increases the liability to the disease. The most common exciting causes are injuries of the head causing concussion of the brain, insolation, the suppression of cutaneous eruptions, dentí

tion, pertussis, intestinal irritation. Cold and other causes which increase the determination of blood to the head," two of the most powerful causes of irritation and congestion of the brain are dentition and intestinal irritation." Causes which when combined may be regarded as the principal agents in the production of this malady. When the irritation of the intestinal canal has existed for some time it also becomes a predisposing cause of the disease the brain under such circumstances usually sympathizes strongly with the intestinal affection and thus gives rise to a slow grade of cerebral inflammation. Cholera infantum appears frequently to give rise to effusion more especially when it assumes a chronic form and post mortem examinations of those who have died with symptoms of the latter disease prove that the arachnoid membrane has exhibited the same signs of inflammation as when the inflammation has been excited by other causes. Arachnitis frequently occurs during the progress of febrile diseases, such continued fevers, Scarlatina and measles. And when such an occurrence does supervene the disease is "entirely inflammatory and requires the most vigorous antiphlogistic treatment.

When arachnitis becomes fully developed and it assumes a highly inflammatory form the indications to be fulfilled are to lessen the arterial action to counteract the local irritation and to lessen the determination of blood to the head. The remedies which

Should be resorted to for these purposes are plainly indicated.
The most important are blood-letting both general and local, purgatives, cold applications may also be used with great advantage, to the head. When the inflammation has been subdued by such remedies and if the skin continues dry an constricted one often derive benefit from the administration of antimonials
If the pain in the head should still continue to torment the patient and if the violence of the inflammatory symptoms do not forbid their application blisters to the back of the neck and behind the ears will often be productive of the happiest effects. They have also been recommend to the upper part of the spine.
The propriety of the administration of mercury in this form of this disease has been advocated by some and deprecated by others. Rush and Abercrombie are among those who are opposed to the mercurial plan of treatment, And I am inclined to think but little benefit can be expected from its use, except in such cases as exhibit evidences of hepatic derangement and it should be given merely with a view to restore biliary secretion if it be deficient or to check it if it be morbidly increased or vitiated. The remedies which most authors rely upon in the management of this malady are purgatives, they are recommended by some in every form and variety of the disease, and few cases I think would terminate favourably, in which those remedies had not been freely used particularly in the early stage its more inflammatory form. Dr Abercrombie in speaking of the utility of

of purgatives in diseases of the brain observes" my own experience is that more recoveries from head affections of the most alarming aspect take place under the use of strong purgatives, than under any other mode of treatment. Though purgatives are remedies which may be considered indispensable in some forms of arachnitis, where there is evidence of great determination of blood to the head, and constipation and torpor of the intestinal canal, yet I think they should be used with some caution in the less acute and violent modifications of the disease. In many cases indeed their administration would be inadmissible, in such cases for instance as are attended with a great degree of irritation of the mucous membrane of the intestinal canal. a circumstance which I believe has a considerable influence in the production of the disease.

When arachnitis occurs as a consequence of Cholera infantum or other diseases of the intestinal canal, the system is generally too much enfeebled to admit of an active course of treatment. And consequently no advantage could be reasonably expected from the remedies recommended in its more inflammatory form. The course I should pursue under such circumstances would be to carry off by means of Cathartics the morbid secretions of the intestinal canal which would otherwise prove a source of irritation to the system, and to restore the secretions by means of minute doses of Calomel and Ipecacuanha which would also have the effect of allaying in some measure the irritability of the stomach and bowels leeches to the head and blisters to the extremities with a view to equalize

the circulation. Blisters might also be used with advantage to the back of the neck and behind the ears. In such cases of arachnitis as depend upon irritation of the intestinal and where there is no great determination of blood to the head the use of anodynes ~~[illegible] with a bene-~~ might soothing the patient and thus produce a beneficial effect. For this purpose small doses of Dover's powder have been recommended But as opiatis have a tendency to increase the determination of blood to the head they should never be used except in cases where the primary seat of the disease can be traced to the alimentary canal

An
Inaugural Dissertation
On
Rheumatism Submitted to the
Examination of the Provost Trustees and
Medical Faculty of the University
of Maryland
for the Degree of Doctor of Medicine
By
Francis Butler
of Md.
1834.

To James Montgomery. M D
The following dissertation is dedicated
by his friend and pupil.
The author

To James Reardon M D
The following dissertation is dedicated
by his friend For the many valuable
profesional favours. confered upon the
author whilst pursuing his medical studies
in Baltimore.

Rheumatism — may properly be divided into acute and chronic. but as they essentially require different modes of treatement I shall in the first instance take the acute into consideration. The acute rheumatism is an inflammatory disease generally attended with considerable fever. and the attending pain appears to be seated in the membraneous investments of the joints. and muscular fascia and frequently the muscular fibers themselves as those of the heart lungs or menunges of the brain. This disease is generally ushered in as other febrile affections. a sense of chillness with a general lassitude and depression of spirits and in some a soreness of the affected parts. accompanying these symptoms the joints or parts that are affected are generally red and swollen the patient has the pain greatly increased by the slightest motion of the affected muscles. The pains The pains are most severe and most apt to shift their place in the night time. Sometimes they regularly abate in the morning with a gentle sweat and suffer a considerable exacerbation towards evening the patient remaining tolerably easy during the day. At other times the remissions are very imperfect and the pains in some cases are as severe in the day as in the night.

The pulse is generally full frequent and strong, the

skin is hot and dry the tongue generally coated with a white fur and the bowels constipated the urine is small in quantity and high coloured.

Prognosis.- Althoug there is great pain attending this disease it may not be considered a dangerous affection so long as there is no translation to some of the internal organs. The duration of an attack of this disease is uncertain and may greatly depend on the constitutional predisposition to the disease. it seldom terminates by a critical evacuation. It is said to occur but rarely during infancy. Neither does it frequently attack old persons though they are liable to the chronic variety. Muscular persons of a sanguineous temperament appear to have a peculiar susceptibility to an attack of this disease especially when exposed to its exciting causes.

Causes. The most frequent causes that produce this disease are atmospheric vicissitudes cold applyed or damp applyed to the system when in a high state of perspiration. The predisposing are the inordinate use of spirituous liquors derangement of the alimentary canal. gonorrheal irritation is enumerated as an occasional cause. The imprudent use of mercury has

is said to produce the disease by rendering the system more susceptible of being acted on by the morbific influence of low and variable temperatures. Cullen supposed that an inflammatory state of the blood in connection with a peculiar phlogistic condition of the muscular structure constitutes the proximate cause of this disease. With Broussais it of course is the consequence of gastro enterite. The opinion of Sydenham that it is sui generis of a strictly specific character and is supported by its peculiar character and phenomina. The frequent and often rapid passage of the local affection from one part of the body to another would seem to indicate something radically distinct if not in the inflammatory action itself at least in its immediate or proximate cause

Diagnosis. With regard to the diagnosis the disease which has been most frequently confounded with rheumatism is that we are next to consider the gout. The ancients indeed seem to have made no distinction between them, describing them both under the common name of arthritis. So little did they attempt any diagnosis that Aritiaeus says that arthritis it is a general pain in all the joints. in the feet called podagra, in the hips ischias in the hands chiragra. Trallis asserts that the term rheumatism

was wholly unknown to them. The principal distinguishing circumstances between these two affections are the following. 1st that gout generally has its periodical recurrence after it has once invaded the system whereas rheumatism has not so great a tendency the patient frequently remaining entirely free from the disease during the rest of life after having suffered an attack of it. 2nd rheumatism is most invariably the result of vicissitudes weather. Gout otherwise is brought on by indolence, in conjunction with luxurious indulgence of vinous drinks rich high seasoned and stimulating articles of diet. It is also attended by some premonitory symptoms such as dyspepsia and an uneasy sensation in the stomach. and the predisposition to gout is frequently transmitted from parent to off-spring. and it is principally confined to the small joints. and gout never attacks those who are subject to toil and a temperate life.

℥ Treatement. — ℔ Placed as it is under the head of phlegmasial diseases it appears that it is not equally controled by depletory measures as many of them are.

Though we are unacquainted with any remedy that we could adopt with equal propriety in the acute form of the disease. decisive blood letting in the early stages of the disease where there is considerable vascular action.

may justly be considered a very important auxiliary in the treatement of this disease. But the too frequent resort to the lancet for the purpose of relieving the pain and local inflammation has not only proved unsuccessful but has frequently led to unhappy consequences. For experience has fully established the fact that metostasis of the local affection to an internal organ is particularly favored by the frequent abstraction of large sanguineous evacuations. Dr Johnson says from attentive observation that the system of detracting large quantities of blood in cases of acute rheumatism, is productive of more frequent metostasis from the extremities to internal organs than a more moderate treatement.

Cathartics.— The use of cathartics are always indicated in this disease. for removing the vitiated secretions from the alimentary canal. which continue to accumulate during the course of the disease and assisting to keep up the febrile condition of the system. The mild saline or mercurial purgatives are preferable. Calomel may be given in the quantity of ten or twelve grains at night followed in the morning by a saline draught, this may be repeated as occasion may require.

If the pain continues, unabated in its, violence after we have bled and purged our patient freely. large and regulated doses of Opium under Judicious employment generally affords a

happy relief to our patient. It is considered better to give it in union with small doses of calomel and ~~opium~~ antimony sufficient to produce a mild action on the surface. If the rheumatic inflammation should be translated to some internal organ after large blood letting or from a debilitated state of the system. Opium largely given and the application of a blister to the previous affected part is the onely remedy that we can place any reasonable hopes of success. The use of Calomel opium and tart. antim. in sufficient doses to allay pain and excite a gentle perspiration is highly recommended by Armstrong and other respectable writers in obstinate cases of rheumatism. The specific action of the mercury is to be kept up eight or ten days, and the bowels in the mean time ~~but~~ soluable. generally succeeds ~~to give~~ in curing the patient. (I omited to observe that the patient is to be bled freely and followed briskly by cathartics for two days before this mode of treatement can be adopted)

Emetics have been highly extoled for their remediate virtues in the treatement of this affection undoubtedly they may be benefited by the tendency they possess of equalising the circulation and by the free diaphoresis they induce. They may be indicated in some instances but for a general plan of treatement I am of the opinion that other means might be adopted, far less up

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Emetics have been highly extoled for their remidiate virtues in the treatement of this affection undoubtedly they may be benefited by the tendency they possess of equalising the circulation and by the free diaphoresis they induce. We may be indicated in some instances but for a general plan of treatement I am of the opinion that other means might be adopted, far less up

annoying to the patient than the repetition of emetics.

Diaphoretics. The use of the unstimulating diaphoretics are of unquestionable utility as a auxiliary in the management of this disease. The most applicable diaphoretics are small doses of tart. antim, suffecient to produce nausea in union with the nitrate of potash and small doses of opium.

The diet in acute rheumatism should be the same as in other inflammatory diseases, mild and diluting.

The temperature of the patients room should be as ~~mild~~ as uniform as possible and rather cool. Some think that he should be laid in blankets in order to promote perspiration and prevent taking cold. This may be necessary in chronic rheumatism, where profuse sweating is more frequently employed and the patient is more susceptible of cold.

Local applications are rarely of service in the first stage of this disease. It is observed by Cullen that fomentations in the begining of the disease, rather aggravates than relieve the pain. Blisters applyed to the part affected may be effectual in removing the pain from it. But will ~~not~~ render little service, unless the pains are principally confined to the part. then they would be improper unless the inflammation had been reduced and depletory measures premised. The camphor linament as an elegant rubefacient may be employed sometimes with considerable benefit to the part.

The colchicum.— has gained considerable fame; in the hands; of several who have employed it; both in the acute and subacute rheumatisms. Dr Armstrong says that he has employed it, frequently with success, when the rheumatism was combined with signs of certain degrees of inflammation in the head; chest, or abdomen; and in all of these the local irritations of those parts were remarkably alleviated with the rheumatism apparently from the influence of this remedy. The vinous tincture of of the colchicum seeds may be employed to the extent of from 20 to 30 drops repeated every four hours. or the root or seed may be given in the dose of two to eight grains.

Chronic Rheumatism.— is frequently a sequel of the acute, but it may occur independent of a preceding attack of the acute. The same causes that give rise to the acute, rheumatism also give rise to the chronic form. The pains that attend the chronic frequently passes from part to part, fixing itself by turns in different regions of the system, some individuals are hardly ever free from pain; other are much affected during cold damp weather. The joints are pail cold and stiff, after exercise and the application of warmth is generally comfortable to the patient. The disease continues for an unlimited period, and frequently terminates with the life. If the muscles of the loins are affected it is known by the name, of lumbags here it might be confounded with nephritis; it may be distinguished from it by the following symptoms. In nephritis we have a retraction of one or both testicles, and sometimes a numbness passing down the thigh, nausea and vomiting. pain in the head, and sometimes bloody urine is passed. Acute Rheumatism, sometimes runs into an obstinate chronic form and frequently renders the patient an unhappy unfortunate cripple his remaining days; and it is probably owing to the deleterious properties of the rheumatic taint, on the fibrous and osseous tissues, in those persons whose ossifying process is not completed and by this morbific action continuing to gow on deprives as it were the fibro-cartilaginous substance, and the vessels of the bones of their vitality and by this disturbed action, interferes with the function of nutrition of the part

and not interupting or acting on the vessles of absorption directly. But they still continue to perform their duty. and consequently the different fibro-cartilagenous and osseous structure is finally conveyed away by the absorbing vessles. It is likely in this way we may account for the loss of substance in the vicinity of joints. and ~~[illegible] parts imperfectly performed~~)

In the treatement of the chronic rheumatism we rearly find it necessary to resort to the lancet, this probably would in all cases be an insudicious step, our first first object in view should be to enquire into the state of the digestive organs, and if the appetite should be weak and variable and the bowels, sluggish. the blue pill may be given with benefit. to the amount of four or five grains at night followed in the morning by some mild operient. If there is considerable sluggishness of the system and debility. The quinine may be justly employed. with benefit. The colchicum. may be employed, chronic in the same way. that it is employed in acute. It appears that it is used with more efficacy. in subacute cases. and in such as are the consequence of the acute, form of the disease.

Stramonium. - has also received considerable reputation; in the hands of many who have employed it; in chronic rheumatism; an extract of the seeds is given to the amount of one-fourth of a half a grain. Tinc. from fifteen to twenty drops

arsenic is particularly recommended in those cases ~~of~~ of mercurial and syphilitic pains. It is observed that it may be given with advantage, in old and obstinate cases arising from other causes. A great variety of other internal remedies have been recommended for the cure of this form of Rheumatism. The nux vomica. hyoscyamus. and the poke-berries have all been used and frequently with success. But these and many other remedies, ~~have~~ that I did not deem it necessary to notice, have failed in curing the disease.

An
Inaugural dissertation
On
Bilious Remittent Fever
Submitted to the examination
Of the Provost Trustees
And medical Faculty
Of
The University
Of Maryland
For the degree
Of
Docter of Medicine
By Jno I Botaler

Bilious Remittent Fever.

From a retrospective view of the histoy of Medicine we perceive this disease to have prevailed at a remote period. I might almost say when the science of medicine was in its embryo state; a subject which has constituted a wide field for investigation and research which seems to have attracted the mind of practioners in all countries and ages: When I reflect upon the different Theories and opinions that have been advanced on this subject I almost shrink from the task before me; aware of my own limited observation; Still I indulge myself with the hope that in its execution I shall receive some degree of indulgence from the liberality of my readers. To attempt a perfect histoy of this disease would carry me beyond the bounds I have prescribed to myself in this discussion and if I had the wish I do not flatter myself that my mental powers would be adequate to the task requireing as this subject does more ingenuity than perhaps falls to the lot of any individual for notwithstanding the difficulty and almost impossibility of obtaining by the most untireing perseverence all the information requisite for such an attempt yet so great is the desire in the minds of medical men to establish theory as the first and leading principle and to hide truths and observations.

and to apply them to such principles that it is extremely rare to find a perfect and liberal history of any one disease entirely devoid of its influence. But here I should speak with caution still it is certain that every practioner must adopt. Adopt an imperical practice unless based upon theory. This will not admit of refutation. It is also very clear to every pupil that from the commencement to the end of his Studies So it is in all anatomical investigations and surgical operations such at first sight does appear entirely mechanical we behold the advantages and facinating influences of theory, Why then should we be astonished we see medical Science so much involved in disputed points so replete delusions of cause and effect, but many and obvious as are the advantages and improvements that have been made in the practice of medicine from a theoretical System many and equally obvious also are the disadvantages and erroneous doctrines that have originated under the dark veil of mystery that attends it, particularly in disclosing to our view the history the nature the symptoms and the treatment of all epedemic diseases. I shall therefore speak with caution as I speak not from my own observation but feel myself indebted to others for the knowledge and information I have acquired in relation to

the subject in question I shall now proceed first to speak of the cause secondly of the pathology thirdly of the symptoms by which it is recognized and lastly the treatment. The remote cause of bilious fever is marsh miasmata produced by the action of heat upon vegitable and animal matter Many and various have been the opinions that have been entertained and advanced in reference to the nature of miasmata in demonstrating in what it consists how and in what manner it introduces itself into the system of this however I can say nothing as it has not been demonstrated to full satisfaction. This agent however appears to be the principle cause of this form of fever. others may act as exciting causes in the production of it as worms and ale indigestible food in short all irritants acting on the alimentary Canal. Proximate cause Subacute inflamation of the mucous membrane of the intestinal tube with prominent hepatic derangment. In some cases this appears to be connected with an abundant secretion of bile in others connected with great congestion of the liver little or no bile being thrown into the bowels during the earlier period of the disease. As to the pathology the liver appears to be the seat of

thrown of this form of fever But in every case I have had an opportunity of seeing I think the liver was secondarily affected And this form of fever appears to be nothing more than typhus in a milder form. I shall next endevour to describe the symptoms as they have fallen under my observation When the disease is fully developed there are pains in the head back and lower extremities an icterode tinge of the eys. nausia and often bilious vomiting fullness and tention in the regeon of the chest pulse full frequent and rather soft tounge fowl at first white afterwards brownish. tast bitter In the course of about twenty four hours a remission of these symptoms takes place after a short remission the febrile symptoms rise again and after a certain period again suffer more or less remission This answers to the mild form of the disease. Bilious Remittent sometimes assumes a very violent and even malignent character The febrile heat is intense thirst excessive headache pains in the loins very violent great anxiety of feeling distressing sense of fullness in the epigastrium In twenty four hours nearly a complete intermission

ensues. a second and more violent paroxism soon comes on. The eyes. becomes red and watery the epegastric distress is horrible; there is nausia with constant retching or bilious vomiting, another remission occurs followed by a third exacerbation which often terminates in death or a favourable crisis; The disease sometimes assumes more of a cronic character and in this case great prostration ensues with almost constant delerium; here the pulse is quick irregular and frequent; in some instances the pulse becomes almost natural a sign I think of great danger in addition to the foregoing symptoms the following occurs in violent cases of this form of fever; tongue clammy fatid black; eys red watery or dry urine brown blackish and offensive sometimes entirely suppressed; alvine discharges red watery or black abdomen tympanetic in temperate climates and in situations not abounding in materials for the production of miasmata remittent bilious fever and other types of fever are generaly mild and regular in thier course; in proportion as we approach hot regions we find the disease assuming a more voilent and anomalous Character; in some cases I have said prominent intestinal disturbance is connected with an abundant secretion of bile in others the intestinal disturbance

is connected with great congestion & torpor of the liver
little or no bile being thrown into the bowels duri
the early period of the disease; to the former
class of these varieties we may therefore apply
the term gastric and to the latter that of Hepati
The gastric variety characterized by bitter or putri
tast; tongue covered with a thick yellowish slime which
by degrees becomes dry cracked and blackish; disgust
for every kind of food urine red distress and weight
in the stomach abdomen tense and tender pains in
the loins and knees intense in the forhead distinct
remissions and exacerbations. The hepatic variety
the most rapid and dangerous form of the disease
characterized by intense febrile heat during
the exacerbations; delerium fulness tention and
pulsation in the right hypochondrium; tounge
at first clean great irritability of the stomach
continued vomiting of a glairy fluid skin
becomes yellow towards the termination of the
disease. The liver in most cases pours out an
abundant secretion of dark coloured bile
which is evacuated by stool and sometimes
by vomiting. The stools in such instances are
black and pitchy. The diathesis of bilious
remittent always essentially inflamitory.

though in some violent cases much nervous depression and debility exists such I should say partake of the typhoid character we often find cases with a hot skin white tongue violent pain in the head, Blood letting united with a small dose of Oleum Ricini or Sulph magnesia, sick stomach and diarrhea dry skin often removed by an emetic which is not to be lost sight of; I shall now proceed to speak of the treatment in a brief manner; The indications are first to moderate the action of the heart and arteries secondly to remove the irritating contents of the bowels and lepson intestinal disturbance; Thirdly to restore the healthy functions of the liver; To answer these intentions we must employ bloodletting through it is not often necessary in the milder cases of our autumnal remittents of great use when the pulse is full vegorous and hard; the skin very hot and dry and the headache intense mild mercurial purgatives of much use in mild cases with little irritability of the stomach an emeto cathartic often useful in the higher grades of the disease purgatives are important auxileraries when not carried to an injurious extent as we are taught by one among the Bright luminaries of the profession I alude to professor Potter in the commencement of the disease says he one or two active purgatives are not only

admissible but according to General experience decidedly useful; subsequently however the mildest laxatives only ought to be employed and these are useful through the whole course of the disease. Diaphoretics useful nitre in combination with Tartarized antimony and calomel often useful in the early stage of the disease particularly mild cases; not so where there is much irritability of the stomach; injurious also where it excites much purging. The effervescing draught used with benefit also the spiritus mindereri these two agents are useful to allay gastric irritability Mercury has been looked upon as an important remedial agent in this form of Fever. And there are many advocats both for and against its use However it is now ascertained beyond a doubt that it is a beneficial agent in the commencement with a view both as to its purgative and Constitutional effects. It should be early and regularly given until its specific operation becomes manifest never to be continued until ptialism comes on. Strong Mercurial excitment has been thought injurious in the advanced periods of the disease Mercurial

influence is generally injurious: In the higher
malignant grades of this disease that which
has been termed hepatic from the engorged state
of liver; The first object here is to allay gastric
irritability which is very great; For this purpose
bloodletting is best, Sinapisms to the region of the
stomach a draught of cold water is often benefi
cial, The warm bath after proper depletion is high
ly reccommended when the disturbance of the
stomach is in some degree allayed calomel is an
excellent remedy it should be given in doses of ten
to twenty grains, every four or five hours until
the evacuations become bilious; If the calomel
do not prove purgative, mild laxitives can be
given with it; Two or three alvine discharges must
be procured daily, When the liver has been excited
to action by mercury, here acidulated drinks
are good, after every vestige of the disease has been
removed, tonics might be employed such as bark
gumine or colombo, But generally the patient
recovers without the aid of tonics great caution
should be used as to diet until the stomach
recovers its former tone, In relation to the prox
imated cause of this disease a subject which
has carried with it the greatest diversity

of sentiment which has given rise to the most ingenuous Speculation I leave to the investigation of more injenuous minds than my own to the investigation of more learned and favoured persons than myself. to the decission of those habituated to post mortem rescearch. The want of which I greatly feel; Having now made a conclusion of what I promissed to speak I shall now bring this subject to a close imperfect as it is and in thus acting I Trust that I shall not be exposed to any accusation which may tend to condemn my Intention to any erroneous inductions of the motives by which I have been actuated; However imperfect and unsatisfactory these expressions may appear to the Critic I submit it as it remains leaveing its to plead its apolegy fully sensible that I repose on the tender and kind indulgence of a much respected and enlightened Body. Whose Zealous bosoms are ever open to Candour and liberality. Finis &c J T Boteler

An Inaugural Dissertation
On Epilepsy
Respectfully Submitted to the examination
of the
Provost Trustees and Medical Faculty
of the
University of Maryland
For the degree of Doctor of Medicine
By Charles L Ashton
of King George County and
State of Virginia

March the 5th 1884.

Epilepsia

This disease derives its name from two Greek words which signify to seize upon and is so called from the Suddenness of its attack. By the Roman Physicians it was called the Morbus Comitalis or Convocationing disease from its attacking most frequently during their popular assemblies and from the harangues of their Demagogues being one of the most frequent exciting causes. Hypocrates described it under the appellation of the Morbus Sacer from its supposed origin it being generally regarded at this day as an affliction of the Gods or of Demoniac influence and was on that account viewed with a kind of Reverential awe. Aristotle treated of it by the name of Morbus Herculeus because Hercules is said to have been afflicted with it. In Sacred writing epileptic persons are called Lunatics Its most common appellation now is the falling Sickness from the persons falling to the ground as soon as he is attacked.

Dr Cullen places this disease in the Class Neuroses and Order Spasmi. He defines it to be convul

sions of the greater part of the muscles of voluntary motion attended with loss of sense and ending in a State of insensibility and seeming Sleep Dr Good places it in the Class Neurotica and order Systatica his definition of it is Spasmodic agitation and distortion chiefly of the muscles of the Face without sensation or consciousness. the fits occurring at periods more or less regular.

Causes. The causes of Epilepsy may be divided into the predisposing and the exciting. The Predisposing cause seems to depend upon a peculiar mobility of the Brain and nervous System and this condition may be either hereditary or acquired. The predisposition may be acquired by the too free use of ardent Spirits or any thing that stimulates the brain and nervous System producing debility and this debility producing increased excitability. The exciting causes are various and of these some act mechanically upon the Brain others make their impression upon distant parts and affect the Brain secondarily through the medium of the nerves. The causes that act

mechanically upon the Brain an morbid secretions in the Bones Tunics or Substance of the Brain as Tubercles Exostoses Caries Pus and Hydatids all of which have been known to have produced the disease. The other Set of causes or those which do not act mechanically upon the brain but upon remote parts are numerous. Thus. All Sudden and violent mental emotions as fear Terror Grief Horror and even Joy. The sight of a person labouring under a fit will often become the exciting cause in a person who is strongly predisposed to it. The mere recollection of the causes or circumstances which gave rise to the previous attack. Any kind of Corporeal irritability as an irritability in the ear from inflamation abcess or any foreign substance introduced into it. The irritation caused by a carious tooth has frequently been the exciting cause of this disease in a person who is strongly predisposed to it. Particular Uterine affections and of these none more frequently than the suppression of the Menstrual discharge A Sudden suppression of the Lochial discha

rge has often become the exciting cause in fe
males who are strongly predisposed to it. The sud
den suppression of any habitual discharge as
of a long continued gleet or the Gonorrhael
discharge will often become the exciting cause
of an epileptic attack. Indigestible substa
nces taken into the stomach or acid existing in
too great quantities in the stomach. In chi
ldren there is not a more common cause
than irritation produced by worms in the in
testinal canal. Poisons of the narcotic kind
will produce it: Miasmata in a concentrated
form will likewise produce it. The first ef
fect of the contagion of the Small Pox in
Children is sometimes an epileptic fit

Pathology. The Brain is the seat of this dis
ease and the appearances are very similar
to those which are seen in persons who die of
Appoplexy and Palsy. The Cerebrum is gener
ally found to be in a diseased condition. The
Cerebellum is likewise found diseased.
The substance of the Brain is sometimes pre

ternaturally hard. Sometimes it is softer than natural. The vessels of the Brain are generally in a turgid state. We sometimes find a Morbid yellow friable matter between the lobes of the Cerebellum. The colour of the Brain is of a dusky red approaching to a blackish colour

Diagnosis

Epilepsy is liable to be confounded with Hysteria of the Convulsive form. They may be distinguished from each other by the following Symptoms. In Hysteria the countenance is less livid and distorted than in epilepsy. There is seldom any foaming at the mouth as in Epilepsy. In Epilepsy there is no Globus Hystericus or involuntary laughing or crying as in Hysteria. In Hysteria there is generally an increased discharge of pale and limpid urine. But the most certain diagnostic ~~Symptom~~ Mark is the Aura Epileptica which appears to be peculiar to epilepsy. In Hysteria the fits occur more frequent than in Epilepsy

Symptoms

The attack sometimes comes on suddenly without any manifestation of its approach. More frequently however there are certain Symptoms which usually precede the attack but are of but momentary duration. Thus the patient feels a confused and distressing Sensation in the head his mind is absent and wandering. There is giddiness dimness of sight ringing and loud sounds in the ears flashes of light before the eyes. The veins about the head and neck are generally much distended. Some of the extremities. There is a feeling of anxiety about the precordial region Startings during sleep. indistinct articulation. There is sometimes a complete temporary deafness. The patient is generally gloomy Sullen and irritable. But the most remarkable of the premonitory Symptoms is the Aura Epileptica which is compared by the patient to the feeling which is compared by the patient to the feeling which is communicated by a gentle stream of cool air. This Sensation generally commences in the extremities and gradually ascends to the head which as soon as it reaches

the patient becomes insensible and falls to the ground and is violently convulsed. The muscles of the face are very much affected giving the patient a frightful appearance. The eyes roll about in their sockets the eyelids are spasmodically affected the tongue is thrust out of the mouth and is sometimes severely wounded by the teeth The abdominal muscles are drawn in towards the spine. Respiration is hurried and laborious. The pulse is generally small and frequent These Symptoms gradually abate respiration becomes free the pulse full and regular. The Countenance more composed finally he falls into a state of Stupor and deep sleep from which he awakes with a feeling of languor and confusion which continues for two or three days

Prognosis

The immediate danger from an attack of epilepsy is not in general very great Yet in relation to its Sanibility the prognosis is always unfavourable. In forming our prognosis we must always take into account the cause which gave rise to it. When it depends upon Organic disorder with

in the cavity of the head or when there is hereditary predisposition the prognosis is always unfavourable. When it occurs in young females about the age of puberty and arises from a suppression of the menstrual discharge it is generally curable and sometimes passes off spontaneously after the catemenia begins to flow regularly. In Children when it is produced by the irritation from worms in the intestinal Canal. we may in generally be able to effect a cure. When it occurs soon after birth or in early infancy. the prognosis is unfavourable. From the period of dentition to that of puberty is the most favourable age for effecting a cure. If the premonitory symptoms should show themselves in the extremities the prognosis is more favourable, than if they be seated in the head. It is said that a long continuance of sleep and subsequent mental stupor and confusion after the subsidence of the paroxysm is a very unfavourable sign. When it arises from moral causes particularly from violent anger or grief it is said to be very rarely cured when it comes on during sleep it is said to

be more intractable than when it comes on during the day and is preceded by premonitory symptoms

Treatment

In the Treatment of Epilepsy we have a three fold object to accomplish. first to remove all sources of irritation. Second to moderate the affluse of blood to the brain. and third to alter that condition of the nervous System upon which convulsion depends. To accomplish the first object we should endeavour to find out the seat and cause of the irritation and to remove it if possible If the existence of worms should be suspected we should give Anthelmentics and of them the Spirits of Turpentine is the best that we can employ. If the irritation should be caused by some indigestible substance taken into the Stomach we should administer a gentle emetic and if this should act sufficiently we should give a Cathartic. If acid should exist in too great quantities in the Stomach we should give Alkaline Remedies

To fulfill the second indication or to moderate the affluse of Blood to the brain. if the pulse be full and strong we should take blood freely. Administer Saline purges. Place the lower half of the body in warm water apply cold applications to the head. We should employ Counter irritants. The Spine may be rubbed night and morning with different preparations of Ammonia Camphor or Cantharides. Seatons and Issues have been have been applied to different parts of the body so as to keep up a perpetual counter irritation. The Actual and potential Cautery have likewise been used. It should be applied along the course of the Spine or to the part from which the aura seems to arise. A tight ligature put around the member above the joint from which the aura arises will frequently stop a fit

The third indication is to be accomplished by the use of medicines of the tonic and narcotic class. The tonics employed are both vegetable and mineral. At one time the

Misseltoe of the oak stood at the head of remedies for epilepsy it was looked upon as a specific. It is now never employed. The Bark & Leaves of the orange tree were likewise much used they are now never employed. Of the vegetable tonics the peruvian Bark is the best it is the only one that is used at the present day. It is to the Mineral Kingdom that we have to look for remedies in Epilepsy. and of these the Oxyde of Zinc is generally regarded as one of the most efficient remedies. it Should be commenced with in doses two grains three times a day and gradually increased to forty or fifty grains a day. The Sulp Zinc is spoken of very highly by Cullen in this disease The Cuprum Ammoniatum was the favourite remedy of Dr Cullen. It should be commenced with in doses of from a quarter to half a grain and gradually increased to one or one & a half grains three times daily. The Nit Argenti possesses at present more reputation in epilepsy than any other remedial article. It should be given in as large doses as the stomach will

bar. We may commence with one grain and gradually increase the dose to three or four grains three times a day. The Acetate of Lead given in doses of about five grains three times a day is considered an excellent remedy.

The Narcotics that have been employed are Camphor. Hyoscyamus Stramonium and Opium. Dr Cullen says that he has found Camphor of service in epilepsy. It is generally given in combination with the Cuprum Ammoniatum or with the flowers of Zinc. When it depends upon a suppressed cutaneous eruption or on Organism. Or when it is connected with unusual venereal desires it is a remedy of great utility.

At one time the Hyoscyamus was thought to possess considerable curative powers in epilepsy. Later experience however does not confirm these favourable sentiments of its virtues.

The Stramonium was first employed in this disease by Storck of Vienna and the result of his experience was much in favour of its remedial powers in epilepsy. Later experience however has not confirmed the hopes which the trials of

Storck and others were calculated to inspire.
Very little can be said in favour of the powers of
opium in epilepsy. When the disease is indepen-
dent of any organic cause and connected with
great irritability of the system Opium may
do good if it be given a short time before
the paroxysm. It should never be employed
when there are marks of strong congestion in
the vessels of the head.—

An
Inaugural Dissertation
On
Apoplexy, Submitted to the
Examination of the Provost, Trustees
, and Medical Faculty, of the
University of Maryland,
for the Degree of
Doctor of Medicine
By
William B. Rowland
of Maryland
1834

To Alex Glendinen M.D.

The following dissertation is
dedicated, by his friend, and pupil

The Author

Whether Stertor is, or is not a necessary attendant on Apoplexy, is a question which does not appear to be decided by Nosologists. While most writers have set it down, as an essential Symptom, others do not consider it a necessary index. To the latter class belongs Dr Cullen, who is generally conceived to have omitted this mark, in consequence of his having included Asphyxy, and Catalepsy under the genus Apoplexia. To us the decision of this point, would appear to be attended neither with difficulty nor uncertainty. The true Solution of the question, is perhaps the following, that altho. Stertor most generally does accompany a decided Apoplectic paroxysm, well marked Cases have occassionally occurred, in which this Symptom ~~[illegible]~~, has been wanting throughout their whole progress. Nosological rules apply as well to this as most other morbid affections. That they do in many instances give us a true delineation of diseases will not be denied: but at the same time it is not to be concealed that in by far the greater number of cases, the exceptions would apply as often, as the rules. As Dr Cooke has very properly qualified his definition in respect to Stertor, we shall adopt it on the present occassion. The Dr. very modestly says, perh-

aps. Apoplexy may be thus defined." it is a disease in which the animal functions are suspended, while the vital, and natural functions continue, respiration being generally laborious, and frequently attended with Stertor." That this, like any other definition, will be found wanting in rigid accuracy will be admitted: but it appears, as unexceptionable, as any other with which I am acquainted, and this together with the fact that, it is useless to be fastidious in respect, to definitions, must be our apology for any want of precision, or ingenuity, we may have displayed in definition hunting.

The Etymology of the term Apoplexy ε from απο, ἀπλη-ssω to strike, or knock down ξ, would lead us to believe that its unhappy victims are seized suddenly, and unexpectedly in all instances. Experience however teaches us that this is rarely, if ever the case. In all cases if sufficient attention could be paid by a careful observer its approach would be found, to be advertized, by many well defined symptoms, referrible for the most part to the difficulty, with which the Brain exercises its functions. The most remarkable of these are the following: Vertigo, a dull and deep seated pain, or sense of weight in the head, particularly on stooping or making any

sudden exertion; violent Throbbing in the temporal, and occipital regions, confused noises in the ears, flashes of light before the eyes, temporary blindness, but more commonly a mere difficulty of discerning objects will be remarked. Upon these symptoms Epistaxis not unfrequently supervenes & affords a partial, and temporary relief; the vessels of the Schneiderian membrane giving way prevent Congestion, and perhaps fatal effusion within the Cavity of the Cranium. Drowsiness, confusion of ideas, loss or unusual weakness of the memory, and in short torpor both of body and mind are usually noticed before an apoplectic attack. We also frequently observe indistinctness of articulation, and various other partial paralytic affections. These may be confined to a limb, or part of a limb, and strange as it may seem, a loss of feeling in one or more of the fingers has been the harbinger of this disease. The muscles of the eyelids are frequently affected and then the eyes can neither be shut, or opened. The muscles of one side of the face too, are often impaired, & those of the opposite side meeting with no resistance in their action, produce a distortion of the Countenance. A symptom occasionally noticed is a loss of sensibility in a particular part, while the power of motion remains: the Converse of this is equally true

sensibility remaining, and even being morbidly increased while the voluntary muscles are alone paralyzed. These symptoms and others of a similar character, indicating an unusual determination of blood to the head, mark the tendency to the apoplectic state. Of these however it may be remarked, that vertigo, ringing in the ears, impaired vision, pain & heaviness in the head are by far the most common precursors of an apoplectic fit, and to these the attention of the Physician will be particularly directed, if present at this period. Notwithstanding the almost invariable presence of the most decided of the above premonitions, their duration is extremely various. They may not continue more than one or two hours in some cases, while in others they may occur with occasional intermissions & remissions for weeks, & even months. Persons labouring under an aneurismal condition of any of the cerebral vessels may be troubled with symptoms of Aphasia disorder, for an almost indefinite period, until at last upon the application of some strong exciting cause, they are rendered comatose by an effusion of blood somewhere within the Cranium. Three distinct forms have been noticed under which the attack of Apoplexy occurs, the boundaries of each being well defined, although after

a time they frequently pass into each other imperceptibly. In the most usual form of apoplectic seizure, the Patient is apparently deprived of all sensation & motion, instantaneously sinking into a State of profound stupor from which it is impossible to rouse him. Boerhaave noticing the resemblance between this form of Apoplexy, and profound Sleep declared it to be its true Character. To this form Nosologists have applied the appellation of Apoplexia perfecta. In the second form the Patient is seized with a sudden rending pain in the head, paleness of the Countenance, Cold Extremities, nausea & vomiting sometimes. Upon these Symptoms insensibility generally supervenes, & the Patient falls to the Ground. In other Cases however he does not fall down, the sudden attack of pain in the head, being only accompanied by slight & transient loss of recollection. In both Cases, partial recovery takes place, the Patient may be able to converse sensibly & rationally or walk about attending to his ordinary business, still complaining however of an indescribable feeling of misery in the head. After an interval, various in its duration, he becomes forgetful incoherent, and finally completely Comatose.

The third form of apoplexy is ushered in by Hemiplegia or a paralysis of one half of the body, without stupor

or if they be present it soon disappears & the Patient is enabled to express himself by signs. Here it is scarcely necessary to observe, that this from after a few hours, may end in Complete apoplexy, or under an appropriate system of medication in health more commonly however, if the disease be fortunately be arrested at this point, recovery will be protracted for weeks, or months, & perhaps never Completely effected —

The Phenomena attendant upon the apoplectic paroxysm are various, in the most severe form of the disease, sensation, voluntary motion, and intellect are entirely suspended. In slighter affections, the Patient retains some degree of Consciousness, is sensible to impressions, & capable to a certain extent of voluntary movement. The pupils of the eyes, altho generally widely dilated, and insensible to the stimulus of light, are occasionally Contracted. Sometimes they Contract & dilate alternately with great quickness, without being influenced by the stimulus of light. Sometimes one side of the Body lies motionless, without manifesting the least degree of feeling, even when strongly irritated, while Convulsive movements, with perhaps some degree of feeling, are perceived in

the opposite side. We are then enabled to predict that in
Case of recovery, Hemiplegia will be left behind.
Respiration in violent Cases of apoplexy, is commonly
slow, laborious & generally Stertorous. At other times the
Breathing is natural. Expiration is often attended with
a puffing motion of the lips, & a frothy Saliva is blown
out from the lips with considerable force. The general
circulation of the blood, as indicated by the pulse at the
wrist is far from being uniform. Sometimes the pulse is slow
full & bounding, while the face is flushed, the eyes red, &
the Extremities warm: at other times the pulse is small
weak & perhaps irregular, the face pale, the features
shrunken, the eyes dull, glassy, & the extremities Cold.
The power of swallowing if not entirely lost, is commonly
so much impaired, as to oppose the most serious
obstacles to the administration of remedies by the
mouth. The Bowels as in all Cases of Cerebral op-
-pression are torpid, & in violent Cases resist every
Effort to evacuate them by Cathartic medicines. Where
a fatal termination is about to ensue, the pulse us-
-ually becomes small, irregular, & frequent; and the res-
-piration slow, short & interrupted by long intervals. ——
Diagnosis. To attain a correct diagnosis in apoplexy
is not commonly attended with much difficulty. Where

a loss of consciousness and voluntary motion suddenly comes on. attended with a active State of the circulation and full respiration the nature of the disease cannot be mistaken. It is liable however to be confounded with natural Sleep & Syncope from both of which for the purposes of practice it is necessary to be distinguished. In Syncope respiration is almost imperceptible, the pulse is not to be felt at the wrist, the features shrink, & the surface of the Body becomes pale & cold: in Apoplexy the reverse of all this usually takes place. It is less easy to discriminate between Apoplexy & natural Sleep: the distinction can only be made by our being able to rouse the person from Sleep however profound, by a certain degree of irritation. This cannot be done at all, or but imperfectly in Apoplexy. The habits of the individual, the smell of the breath, the unfirmly fallen & condition of the lower jaw, and the general relaxation of the muscular system will afford a correct diagnosis with regard to intoxication. The presence of Convulsions, foaming at the mouth, and the acquaintance with the predisposition of the Patient, the Aura Epileptica &c will assist to distinguish it from Epilepsy. Moreover this latter disease makes its first appearance

Commonly at an early period of life, which is seldom the case with apoplexy. In all these cases, however it is to be carefully borne in mind that apoplexy may occur, & then the prudent Practitioner would proceed as in a case of an idio-pathic attack without any regard to the primary affection. Palsy except when local is only a minor degree of Apoplexy, the former being a partial Apoplexy, & the latter a complete or universal palsy. The diagnosis can then ~~only~~ be of importance, only so far as regards degree.

Prognosis. The general Prognosis in this disease is extremely unfavourable. Where it does not prove fatal it predisposes to a relapse, & often terminates in a lesion of some of the mental faculties more or less general: often in Hemiplegia, which usually takes place on the opposite side of the body from that of the Brain on which the injury has been inflicted. In the various paralytic affect-ions which are the sequel to Apoplexy, it is impossible to decide with any degree of cert-ainty as to their final result. Altho the primary cause of the Paralysis may be removed, that part of the Brain which has sustained the injury

may be so completely modified in its organization, as to be forever after incapable of exercising its healthy influence over the nerves, distributed to the paralyzed organs. Existing Symptoms can alone guide us in forming a particular Prognosis. Where the breathing is not much disturbed, the pupil relaxed and no appearance of Spastic action: where the perspiration is easy, the Skin warm & natural heat, & the Bowels readily excited, & more especially where there is any spontaneous discharge, as from the nose, or Haemorrhoidal vessels, we may venture to augur favorably. But where the Symptoms are directly opposed to these: where the Breathing is very much impeded with foaming at the mouth: where the teeth are firmly clenched, & the power of deglutition entirely gone: where the pupils are widely dilated, & insensible to the strongest light, no reasonable Expectation of recovery can be sustained. The pulse after being slow, strong, and full, becoming small, frequent, & intermitting, is a very unfavorable Symptom, & when conjoined with Cold sweats indicates a fatal tendency. Writers do not agree in the Prognosis to be drawn from Convulsions: Some as Cheyne say, that they portend a

fatal result, or the diminution of the morbid cause. Those cases which commence with a sudden attack of pain in the head, falling down senseless, & then remitting for a short time, have been considered necessarily fatal, being attended with almost unlimited extravasation of blood &c. It is probable that in these cases, the symptoms are relieved for a time by the bursting of a blood vessel, which continues to pour out blood until Coma is produced. The rapidity with which the disease advances in cases of this class will depend in a great measure upon the size of the vessel from which the Haemorrhage takes place. From some cases reported by Dr Abercrombie, it appears that the bleeding is sometimes stopped by the formation of a Coagulum at the ruptured part, until some irritating cause renews the Haemorrhage. In one of Dr A's cases, two weeks intervened between the first attack and the fatal Coma. In these cases, the artery is probably diseased at the place of rupture, & this satisfactorily accounts for their not being preceded by the usual train of Premonitions. Now the effusion of blood within the Cranium cannot but be regarded as extremely hazardous

and unfavourable: but the researches of modern Pathologists, & particularly the French, have satisfactorily proven that recovery after effusion, does sometimes take place. A membranous vascular cyst, say they, is formed around the extravasated blood, the blood is absorbed by the vessels of the cyst, & finally the cyst itself is absorbed, leaving a yellowish cicatrix, or lamellated cellular structure which in some cases is found to contain a small quantity of reddish serum. Sir A Cooper believes that the blood is not absorbed, but that the brain acquires the power of bearing its pressure. That the Brain can accommodate itself in some degree to unnatural pressure, is a fact well known to every practical surgeon, otherwise how can we account for persons enjoying perfect health, with extensive portions of the cranium depressed. Equally as much can be said in favour of absorption, for absorbents altho not actually demonstrated in the Brain, do undoubtedly exist there: indeed the absence of absorbent vessels here would be directly at variance with the present received Physiology of Nutrition. For all practical ends, it is sufficient to know that a favourable termination can take

place under these adverse circumstances: Nor is of
less moment, the double, very important in a
Scientific point of view. The above remarks
apply to Extravasation resulting from previous
Congestion, the vessels of the Brain being in a
healthy condition. The Causes predisposing
to Apoplexy are old age. Bodily conformation, Sedentary
indulgences, & the Suppression of accustomed Evacuations. Why persons of advanced age should be
more liable to this disease has not been satisfactorily explained: instances of the disease occurring at an early period of life are by no means
uncommon, but a large majority of cases occur
after the period of middle age. From Reliable
observations, it would seem that Apoplexies
occur more frequently after the Sixtieth year
of life than at any other period. That form of
body Consisting in a short thick neck, large head,
full face, and broad Shoulders has been remarked
[illegible] as increasing the liability to this
disease. Such persons are particularly subject to
local determinations of blood, particularly to the
Brain. This form of body Constitutes in many cases
the hereditary predisposition to Apoplexy, noticed

in particular families: but occasionally persons of a thin spare habit, tall in stature, are troubled with all the precursors of Apoplexy. Here we cannot call to our aid, Corporeal Conformation in giving a satisfactory explanation. In my opinion in such individuals, there exists a preternatural capacity of the Sinuses & veins of the Brain, favouring retardation & accumulation of blood in them. That this is not a mere speculative notion, I infer from analogy: for do we not observe a great disparity in the Number & size of the veins in different parts of the body, in different individuals? & certainly it is fair to conclude that the same diversity obtains in the Cerebral venous systems of particular individuals. Hypertrophy of the Heart, aneurismal dilatations of the aorta & Pulmonary arteries, tumours seated on the neck favour the development of Apoplexy.

The exciting Causes of this disease are very numerous; whatever increases the flow of blood to the head thro' the arteries, or prevents its return by the veins can become an exciting Cause. To the first class belongs exposure of the naked head to the Suns

rays, and Erysipelas affecting the Scalp. Warm Climates, Hot Baths, Distention of the Stomach with Stimulating ingesta, abuse of the above way. The undue treatment of the depressing Emotions of the mind is perhaps one of the most frequent Exciting Causes. Those Causes which Operate, by preventing the return of blood from the Head thro the veins are Flexion & Torsion of the neck, tight ligatures, Tumours in the Course of the great vessels of the neck: Organic affections of the Auricle, Diseases of the Lungs &c. Besides the above Causes which act solely mechanically I shall place under this head, the application of Cold to the Surface of the Body. The depressing passions &c Proximate Cause. Notwithstanding Authors have been so unfortunate in their descriptions of this disease, they are far from being unanimous in their opinions Concerning its Pathology. The discrepancies of opinions on this subject are undoubtedly in a great degree owing to the various appearances, observed in the Brain upon Examination post mortem. One person will have all the symptoms of Apoplexy and under the usual remedies perfectly recovers. Another dies under

apparently similar circumstances & treatment, & on dissection Effused blood is found somewhere within the cranium. A third dies and serous effusion is found &c. A fourth dies and upon examination an engorgement of the cerebral vessels is observed: while a fifth dies and no cognizable cause of death can be found in the Brain. These cases where no morbid appearance presented itself, could not be accounted for upon the old doctrine of Compression of the Brain. Hence numerous hypotheses, equally absurd as they are numerous, were framed to explain the cause of the Patients death. "Recess of the animal Spirits, being suddenly extinguished by certain malignant narcotic principles: of the sudden relaxation of the meninges and System of the nerves, & vessels of the Brain." By some these cases were referred to a new species of apoplexy called nervous. Now I apprehend cases of apoplexy strictly have been exceedingly rare: that a state of the Brain may exist, rendering it incapable of transmitting by the nerves the proper stimulus to its dependencies may be admitted; but such cases, although reported by Careful observers, are to be received with some degree of Ambiguity. An individual of an apoplectic Constitution dying suddenly, has his death attributed to Apoplexy

In many cases this supposition will be verified upon dissection: but should the Brain be found perfectly healthy, without pursuing the investigation further, the Case is ranked as under the all Comprehending term of Nervous Apoplexie. In many such Cases there is every reason to believe that Disease seated in the Heart, or its neighbourhood, sufficient to account for the sudden extinction of life. Those cases in which Nervous Symptoms are found Constitute the Apoplexia Nervosa of Nosologists, & much importance has been attached to a Correct diagnosis between this form & that which has been Called Sanguinea, upon the principle that the practice proper for one would be improper for the other. The former is said to be accompanied by a weakness of the pulse, paleness of the countenance, by occurring in the aged, & infirm: the latter by a flushed face activity of the circulation, & by occurring in the robust, & plethoric. This distinction however has not been upheld by observation, for Symptoms of Nervous Apoplexy have been found after death, when all the supposed characteristics of Nervous Apoplexy had been observed during life & vice versa, when all the Symptoms of the Sanguineous Apoplexy were present during life nothing but Nervous was found after death. Independently of all this, it is somewhat uncertain

wether those cases, in which serum is found in inor-
-dinate quantity, should be set down under the
head of legitimate apoplexy. In other parts of the
Body serous effusion is very seldom a primary
disease: it arises as a result either of inflamm-
-atory action, or impeded circulation, and takes place
slowly, not accumulating at once in such quan-
-tity as to induce urgent symptoms. By a parity of
reasoning I infer, that where the phenomena of apo-
plexy have been induced by serum, upon enquiry
symptoms of Cephalic disorder will be found to
have existed for some time previously to the attack.
The two remaining conditions of the Brain found upon
examination can be satisfactorily accounted for.
The effusion of blood, except in diseased states of
the vascular tunics is secondary and always prec-
eded by more, or less congestion, or vascular Turgesc-
ence either arterial, or venous. When from any cause
more blood is sent to the Brain than can be returned
by the arteries, symptoms of compression to a greater
or less extent will be induced. This state may
pass off speedily under proper management, or
terminate speedily in extravasation, or the mere
Turgescence of the vessels may be sufficient to destroy

life. Again it is probable that the first pathological link is a congested state of the veins of the Brain, which if the Congestion be not enough to extinguish life, will be followed by Reaction, the distended state of the veins giving rise to an increased & impetuous excitement of the Heart & arteries. These two Pathological Conditions will account for the diversity of symptoms exhibited during a apoplectic fit: the nervous variety being ushered in by Chilliness, paleness of the Countenance, coldness of the extremities, small pulse &c; while the arterial form is attended by all the evidences of strong excitement of the Arterial System. This view of the subject moreover is borne out by the character of the exciting cause, one class of which increase the flow of blood to the Brain, while the other impedes its return thro' the veins to the Heart. That these two varieties can not always be distinguished by the existing symptoms will be admitted but that have before said reaction of the heart & arteries may ensue upon the nervous apoplexy: again the powers of life may be so overwhelmed by the unusual quantity of blood sent to the Brain thro' the arteries, as to simulate all the symptoms of the

deepest venous Congestion. From the preceding observations it will be perceived, that pressure upon the Brain is to be viewed, as the proximate cause of this disease, the mode in which the pressure is induced not being always the same.

Treatment. The great object to be kept in view, in the Treatment of Apoplexy, is the removal of the vascular Congestion, or pressure from the Brain. This fundamental indication is to be answered by a reduction of the general mass & momentum of blood: and by the employment of means calculated to depress the determination of blood to the Brain, and to derive it from the cerebral vessels. In this however as in all other diseases, the extent to which evacuations can be carried, must be regulated in a great degree by existing symptoms. When the pulse is weak, and feeble, the face pale, the extremities cold, it must be very evident, that depletion if used at all, must be trifling, & accommodated to the state of the vascular system. In such case the proper plan of procedure would be to enable the system to react by the use of external stimuli; blood if drawn at this time, should be taken in

very small quantities at intervals thus enabling the Heart and arteries to resume their action gradually. In that form of Apoplexy attended by a full strong pulse throbbing of the temporal and occipital arteries, a more decisive and energetic plan of treatment is to be adopted. The Patient is to be carried into a spacious apartment, carefully sustained in the erect posture, the Head being elevated upon the Shoulders. Then a large orifice is to be made into a vein and Blood suffered to flow, until the circulation is sensibly affected. Next to Bloodletting in point of Efficacy is the application of Cold to the Head, applied by means of iced water, or what is better still, by a stream of Cold water directed against the Crown of the Head, and received in a Bason held under the Chin. As the Bowels are torpid Cathartics would naturally form part of the plan of Treatment. Besides the more evacuation of the Bowels, they divert the circulation to the intestines, excite a copious secretion from their internal surface, thus acting as counter irritants, & evacuants. Provided the Patient is able to swallow it is of very little importance what particular

Cathartic is used. The best perhaps as a gene-
al one - would be a Combination of Proto Clor
Hydr. & ol. Tiglii, 10 grs of the former to 1 gt of the
oil to be repeated as often as occassion may
require - At the same time Stimulating
Enemata may be resorted to occassionally -
With regard to the repetition of Bloodletting no
rule can be laid down; as long as the pulse
Continues active, this evacuation is to be repeat
ed, without any regard to ounces. If the
Symptoms should still persist, after general
Bloodletting has been carried to, a reasonable
Extent, Cupping may be resorted to with adv-
antage - Blisters do not promise much
in this disease, unless it be where the pulse is
small weak & quick and even then they can
be thrown aside to make room for more
Efficient remedies, viz rubefacients. The prompt
& judicious Employment of the foregoing means Em-
braces every thing that can be deemed Effic
ient in the remediate management of Apoplexy.
Altho they will frequently fail in preventing Effusion
it is now well known, that the above Treatment to
a greater or less Extent, is the best method we can
take to promote the absorption of Effused Blood -

- Finis -

An inaugural dissertation,

on

Cholera Infantum

respectfully submitted to the examination

of the

Provost, Trustees, and medical faculty,

of the

University of Maryland.

For the degree of Doctor of Medicine

by

George I. Robertson

of

Dorchester County, State of Maryland.

March the 5th

1834.

To

Nathaniel Potter M D.

Richard Wilmot Hall . M D.

Nathan R Smith M D.

Julius J Lucatel M D.

E- Geddings M D.

and

Robley Dunglison M D. —

The following pages are respectfully inscribed

by the Author —

Cholera Infantum

This disease generally appears about the end of June or the beginning of July and continues during the summer. It differs in several respects from the ordinary cholera of adults being almost always accompanied with fever and frequently commencing in a gradual manner in the form of diarrhœa which continues for several days before the vomiting supervenes. The name cholera infantum originated with Dr Rush and was copied by Cullen into his nosology. It is a disease almost peculiar to the United States. Though children in other countries are liable during dentition, or from other causes to various affections of the alimentary canal yet they all differ from our endemic. The liver appears to be equally as inactive in this as in the other variety of the disease, for when once fully developed, the evacuations during the early period of the disease, are wholly devoid of any appearances of billious matter, consisting either of a whitish frothy, or of a watery and almost colourless fluid. When the disease is very protracted in its course, aphtha usually appear on the tongue and inside of the cheeks; the face acquires

an adematous appearance; the alvine discharges become so acrid as to excoriate the extremity of the rectum, and towards the fatal conclusion spots of effused blood under the cuticle sometimes appear on various parts of the surface.

Etiology or cause. There are three causes whose concomitant influence is chiefly concerned in the production of this variety of Cholera, namely, high atmospheric temperature; the contaminated air of crouded cities; and the irritation produced by dentition. Improprieties in diet and clothing, worms lodged in the alimentary canal, and premature weaning also frequently excite this disease. It is sometimes complicated with Pertussis and is very difficult to cure, as the remedies for one disease aggravate the other. Diagnosis. There are but two diseases with which Cholera is liable to be confounded these are diarrhoea and dysentery. In dysentery there is a burning sensation and pain in the bowels and frequent desire to go to stool, the evacuations being watery, mucous, or bloody, without any admixture of natural faces. The patient complains of a load in the intestines, which he endeavours to cast

off by violent efforts of straining. there is also, nausea but no, vomiting. In Cholera There is generally no mucous or blood but diarrhoea and vomiting. In dys-entery the Stomach is not much concerned. In chol-era infantum it is chiefly concerned. It may be distinguished from diarrhoea by the vomiting and great irritability of the stomach. which sel-dom or never occurs in diarrhoea. Prognosis. The pro-gnosis in this disease is extremely difficult; since death sometimes happens, very unexpectedly, and recoveries frequently take place long after the cheer-ing influence of hope has entirely abandoned us. If the pulse becomes slower, fuller, and more natural; the temperature restored to the surface, and equally diffused; the irritability of the bowels and stomach dim-inished; the alvine discharges previously denoting the absence of bile, changing to that of a dark billi-ous offensive matter, the prognosis is favourable. Till this happens, or in other words, without the liver is restored to its natural functions, convalescence does not generally take place. Where the surface is cold and damp, the pulse small and wiry; The countenance lank and haggard; incessant puking

purging of greasy fetid matter; attended with extreme nervous sensibility, or an entire extinction of it, imminent danger is to be apprehended. — Pathology. In recent cases the brain presents no morbid appearances after death except those of congestion; but in protracted cases, effusions are often met with constituting hydrocephalus. The large intestines are seldom affected in this disease; and perhaps never, [illegible], excepting where the disease assumes the dysenteric form. The liver, under almost all circumstances and especially in cases of long continuance, is greatly enlarged so as sometimes to occupy two fifths of the cavity of the abdomen. But though its size is thus increased, its structure appears to be very little deranged. It is merely distended by congestion; and on this account is more firm and solid than natural, evidently induced by torpor in the portal circulation. Treatment. The treatment of Cholera infantum differs essentially from the other variety of the disease. In this disease we have the important indication, of obviating irritation and sanguineous congestion of the brain; and hence opium which is decidedly the most valuable remedy in the other vari-

-ties, cannot be employed without great hazzard of doing mischief in the first stage of this disease. An emetic by some has been recommended at the commencement of the disease, supposing that the stomach contains offending matter which spontaneous vomiting is incapable of throwing off: but this practice is founded on an erroneous view of the pathological condition of the alimentary canal, and is generally decidedly injurious. If the disease has been provoked by any irritating matter taken into the stomach, we should of course endeavour to remove it, by encouraging the vomiting, by draughts of warm water, until the foreign substance appears in the matter thrown up but we should never administer an emetic; for so long as nature continues her efforts it will not be required, as she will certainly succeed if assisted and it will never be necessary after it has been cast off. Torpor of the skin and liver, in connexion with cerebral irritation, constitutes the the immediate cause of the excessive irritability of the stomach and bowels. Our principle object must be therefore to restore these two functions. If there be much sanguineous congestion in the brain, we may commence the treat-

-ment with venasection or the application of leeches or cups to the temples. Cathartics are improper in the first stage of this disease, on account of the irritation which they produce. Blisters and sinapisms have been recommended, they should be looked upon as only paliatives. Our principle reliance should be placed on calomel given in small doses; from a ¼ to ½ a grain should be given three or four times during the day and continued until the secretion of the liver is restored. So long as the liver remains torpid and the alvine dicharges free from billious matter, the disease may ~~still~~ be regarded as still possessing all its violence and dangerous tendency, whatever abatement may occur in the severity of the symptoms. If the heat and dryness of the skin be very great we may add to the calomel a small portion of Ipecacuanha. In small doses it is an excellent auxilliary to the calomel. Its tendency to counteract inordinate action of the bowels, when given in small doses, is well known; and its tendency also to excite diaphoresis, still further enhances its applicability in this and other similar intestinal affections. Where the abdomen is tense and there is reason to believe that the bowels are loaded with fecal

matter the quantity of calomel, should be encreased at each dose, so as to procure its purgative effect. Except under these circumstances, purgatives are not, in general, indicated in the commencement of the disease. Where the disease continues, however, until the liver under the influence of the calomel pours out a large quantity of bile, mild laxatives are highly useful. External revulsive applications to the epigastrium and right hypochondriac region should be used, unless the general habit is phlogistic and depletion indication. The most efficient application of this kind is blisters. When we wish to procure a speedy vesication the parts should be bathed slightly with spirits of turpentine previous to the application of the blister. The warm bath has also been recommended, and is no doubt, when judiciously used a useful auxilliary in the treatment of this disease, especially when the skin is dry and hot and the pulse quick and tense. While the patient is immersed in warm water up to the neck it will be proper to make use of cold applications to the head. The majority of cases of this disease are, more or less, marked by great inequality of temperature. By immersing such patients in warm water we equalize temperature, and diffuse a glow over the entire surface

while other benefits are at the same time attained.
Its effects, however, are transient; and hence, it is necessary to repeat it daily or even oftener. With regard to astringent remedies formerly so much employed in the treatment of this disease they are now considered inadmissible, at least in the acute form of the disease. Where the disease becomes chronic, or continues rather in the form of chronic diarrhoea than of Cholera, the milder astringents may prove beneficial. But the employment of unirritating tonics in the chronic form of the disease attended with great debility and relaxation, is much better calculated to afford relief than the use of astringents. After the disease has continued for some time it frequently passes into a diarrhoea which is gerally attended with a degree of tormina and tenesmus. It is also usual at this time to find the stomach at this time greatly debilitated and the digestive power very much impaired and so irritable as scarcely to retain any description of nourishment. The stools at the same time are apt to become watery and green; manifesting the predominance of acid. The remedies proper under such circumstances consist chiefly of the cretaceous and alkaline combinations ———

When, from the violence and rapidity of the disease, or its long continuance, the exhaustion becomes very great, the extremities cold, and the pulse very small and feeble, internal, as well as external stimulants, become necessary. Under such circumstancies, stimulating frictions, together with the internal use of ~~rawm~~ wine whey, or a weak solution of the carbonate of ammonia, are indispensable to support the sinking energies of the system. To relieve the cholic pains which are apt to occur from flatulent distention of the bowels in the advanced periods of Chronic Cholera infantum, a few drops of the spirits of turpentine or oil of juniper has been recommended. With regard to diet the strictest attention must be paid throughout the whole course of the disease. If the child is weaned nothing but the blandest liquid articles of food must be allowed.

In Chronic cholera infantum the apetite sometimes suddenly begins to crave urgently for certain strong and stimulating food, whilst it loathes all of the lighter and unirritating articles of nourishment. When this occurs it will frequently be proper cautiously to gratify the newly awakened apetite, however opposed ~~it may be~~ to the ordinary dietetic rules

the indulgence may appear to be. The immortal Rush tells us that he has seen many children recover from being gratified in an inclination to eat salted fish and the different kinds of salted meat——
Without these strong determinations of nature, however, it would be highly improper to allow such coarse articles of food; but where they do exist, they may and ought to be gratified.

Nothing contributes more to the removal of this disease, than the pure uncontaminated air of the country. Whenever it is practicable, the patient should be removed into the country; for this change is often sufficient to remove the disease, in a short time, without any other remedial applications.

As preventive measures, gestation, or residence in the pure air of the country; the avoidance of cool night air after a very warm day; nourishment at the breast during the process of dentition, or where this is impracticable, a very light liquid diet particularly milk, and a thin preparation of arrow-root; tepid bathing, and lancing the gums as soon as they become swollen by the protru

-ding tooth, are the most important: _____

An

Inaugural Dissertation

on

Apoplexy

Respectfully submitted to the examination
of the Trustees Provost and Medical
Faculty of the University of Maryland
For
The degree of Doctor of Medicine
By
John H. Brown
of Columbia
So. Carolina

March 1834

This Inaugural Dissertation is respectfully
dedicated to my worthy Preceptor and
Friend Dr. M. H. DeLeon of Columbia So. Ca:
as a tribute of my esteem, for his private
worth, and as a testimony of my regard
for his publick character

To

C. Eddings M.D.

Professor of Anatomy and Physiology
in the University of Maryland &c

This Inaugural Dissertation is respect=
fully dedicated as a testimony of respect
for the talents which have elevated him
to the highest honours of his profession:
and has made him one of the brightest
jewels of his native land: of esteem for
the many virtuous acts which make him
one of the brightest ornaments of Society:
and for the repeated favours bestowed
upon me, during my Pupilage with him

By the Author

Apoplexy

This term was employed by the Greeks and is still used to denote any disease, in which the patient falls suddenly to the ground and is without sense and voluntary motion — Persons who were thus instantaneously affected, as if struck by lightning, were by the Ancients denominated Sydrati — This disease has attracted the attention of Physicians, ever since the days of Hippocrates who in his works frequently makes use of the term. Galen says Apoplectic persons suddenly become senseless, and lose all motion except that of respiration. Paulus Aegineta under the same appellation, discribes the disease well. Aetius and others give similar accounts Dr Cullen in his definition says Apoplexy is a disease, in which all of the external and internal senses and voluntary motion are in some degree abolished; while respiration and the action of the heart continues to be performed. Mr Good defines Apoplexy, mental and corporal torpitude, with stertorous sleep, but Dr Cullen says it was from the most violent forms of the disease unattended

by stertorous breathing. Dr Cullen's definition we consider equally exceptionable as he speaks of the ~~the~~ senses, we think the word suspend introduced instead of abolish would improve the Drs definition much. Dr Eberle also makes use of the term, which we shall speak of hereafter. Dr Potter defines it. an increased action in the arteries of the brain, producing congestion and final effusion into the ventricles, pressing upon the nerves. This disease although one of the most formidable to which the human family are exposed, scarcely ever attacks the patient without warning him of its approach, by some premonitory symptoms; indeed there are few diseases, which are in any degree formidable that attack the system without displaying some premonitory symptoms; but there are none so unequivocal as those, denoting an Apoplectic tendency; and to the Practitioner who knows and does his duty, they are of infinetly more importance, than those of the fit itself. They always demand his immediate attention, and unless he is

prompts in his treatment, he fails in the performance of his duty, and endangers the life of the patient.

The premonitory symptoms are pain in the head,- generally a dull heavy pain, but occasionally it is more acute, accompanied with a sensation similar to that produced by a cord grasping tightly round the head; giddiness, especially when the patient attempts to stoop or turn the head quickly round; throbbing of the temporal arteries; transient deafness; dimness of vision; epistaxis; incoherent talking; and failure of memory. The most common symptoms are a false impression of a light, grasping before the eyes, and the patient thinks it is lightning;- the face is flushed, the eyes look red, and there is an involuntary discharge of tears; the patient is drowsy and sleeps longer in the morning than usual, and with all has a slow pulse. One or more of these symptoms continuing for a longer or a shorter time, the patient falls into an Apoplectic fit. The fit seizes

variously; the common mode of attack is that, in which the patient falls suddenly to the ground, deprived of sense and voluntary motion, and appears like one in a deep sleep, unconscious of every thing that occurs around him. Sometimes he is seized with a sudden and violent pain in the head, pale face, sickness of stomach, vomiting and particularly loss of memory; the patient appears to be in a state of syncope, but soon recovers; converses freely and walks about. After some time he gradually sinks into a state of coma. Another form of the attack, is when the patient is suddenly seized with a palsy of one side, which in a short time passes into a profound apoplexy. Immediately after the accession of the fits, the pulse becomes full, slow, regular and sometimes hard, the respiration is slow and generally stertorous; in violent cases, the saliva becomes frothy and is forcibly blown from the mouth. the face is generally pale and bloated; the eyes suffused with blood; sometimes they have a dull glassy appearance and are either fixed or rolling in the sockets,

the pupils are generally dilated, but we sometimes find them permantly contracted. The extremities are generally below their natural degree of temperature, but the head, and sometimes the body is warm and covered with a profuse perspiration, the muscles of the lower jaw are sometimes violently contracted; deglutition is frequently so much impaired that fluids which have been introduced into the mouth have returned by the nostrils. The duration of the fit is various, and persons have been enjoying themselves in conversation with their friends, when instantly they have dropt dead from their seats. The paroxysm continues generally for 12, 24, or 48 hours and sometimes a much longer time.

Causes.— There are a variety of circumstances both in relation to the constitutional habits of individuals, and the extraneous influences which appear to predispose to this affection. A peculiar conformation of body; consisting

in a large Head, thick, short neck; broad shoulders; ample chest; florid, and full face; short stature; globular abdomen, with a tendency to obesity and plethora.

Persons of such a peculiar conformation of body, are often subject to Hemorrhage from the nose, as well as a sensation of weight and fullness in the Head, particularly stooping or making strong corporeal exertions. When they sleep with the Head lying low, they are restless, disturbed with dreams, and the respiration is heavy and sonorous. Such corporeal structure, constitutes no doubt, in many instances, the hereditary predisposition to this disease, noticed occasionally in particular families.

Portal and Van Hoven state that they have known families in which a hereditary predisposition to this disease was manifested.

Dr Potter in his lecture on this disease related a case of a family, consisting of thirteen persons

all of whom died of Apoplexy, before they arived to the age of thirty five except three. It is to be Guestioned also that a Peculiar condition of the intimate organization, may in some, establish a constitutional tendency to inordinate determination to the Head, and to the consequent occurance of Apoplexy.

Age.— The observations of Hippocrates, that Apoplexy occurs chiefly between the fortieth and sixtieth years of age, still holds good to the Presents day. But there are instances of Apoplexy occurring at a much earlier Period of life. I have just stated a case of Dr Potter, in which there were ten of one family, who died of this disease before they arived at the age of forty; but generally it will be found that a very large majority of cases happen after the age of forty.

Rochoux states, that out of sixty three cases of this disease, two occurred between the ages

of twenty and thirty, eight between thirty and forty- seven between forty and fifty- ten between fifty and sixty- twenty between sixty and seventy- three between seventy and eighty- and one between eighty and ninety years of age. It does appear from these statements, that Apoplexy occurs more frequently after the age of sixty, than at any previous period; and this corresponds with the statements of Cullen and Portal- Whatever tends to produce general plethora, and to keep up a preternatural determination of blood to the brain, increases the liability to Apoplexy. A full and nourishing diet; the habitual use of stimulating drinks, frequent and long continued warm bathing; a sudden change from an active & laborious, to a quiet & indolent course of life; intense and protracted study; and the free use of coffee are among the predisposing causes of this disease.

There are aneurisms of the aorta; hypertrophy of the heart; visceral indurations; and tumours about the neck increase the liability to Apoplexy. The exciting causes of Apoplexy are very numerous. In general whatever produces inordinate determination of blood to the head, or impedes its free return from the brain to the head, may give rise to this disease. In females the cessation of the menses is frequently the exciting cause of this disease; the too free use of narcotics in those predisposed; eating full meals at night in persons not accustomed to it, especially if the ingesta be stimulating; violent straining at stool; the intemperate use of spirituous liquors; violent exertions in lifting; strong fits of coughing, sneezing, playing on wind instruments; singing, laughing & speaking by causing sudden and strong determinations of blood to the head, may produce this disease in individuals predisposed to it.

Exposure to the direct rays of the sun in warm climates, give rise to that sudden and fatal affection called stroke of the sun, which is generally regarded as Apoplexy. Extreme cold, also is capable of producing this affection, by diminishing the circulation in the external vessels, and causing strong internal congestions: violents and sudden mental excitements, rage, excessive joy, terror, and deep sorrow, have been known to produce this disease. Tumours or visceral indurations in the abdomen by pressing on the Aorta may give rise to this disease. Magagni relates an instance which was produced apparently by an enlarged spleen pressing upon the aorta. Dr Cheyne (see Cook on nervous diseases) says I am persuaded that there is to much more in the habits, than either in the original form or diathesis, that I venture to affirm that in nineteen cases out of twenty of those who

die of Apoplexy the disease might have been averted or postponed by temperance. He says farther that the use of wine or spirits as is called in moderate quantity with men of certain ages and constitutions differs Apoplexy as certainly as habitual intoxication.
This is perhaps going too far, but this subject is certainly not sufficiently noticed by Physicians generally.
Apoplexy may also occur in consequence of the repulsion of chronic cutaneous diseases; and it is frequently the results of metastasis of gout. Authors mention also translations of rheumatism, erysipelas and of other exanthematous affections among the exciting causes of this disease.
Dr Eberle says, he knew a case brought on by a very severe attack of mumps. Violents rigors or chills of intermittents, sometimes give rise to Apoplexy. The Dr says he has

known several fatal instances of this kind. He relates a case where he was an eye witness, when the patient was seized with the chills and in about ten minutes after they commenced the patient became insensible, fell into convulsions and quickly passed into a profound apoplectic stupor, from which he did not recover. Besides the causes that I have just mentioned, which operate, apparently by causing undue determination to the vessels of the brain. Apoplexy may also be produced by causes, that impede the free return of the venous blood from the head to the heart. Stooping or other situations in which the head remains in a depending position; wearing tight cravats, and turning the head round to look back by which the jugular veins are in a degree compressed, impeded circulation through the lungs; organic diseases of the heart; tumors on the neck, or in situations where they

pressure upon the veins which convey the blood from the head are the principal of these causes. Authors mention, also excessive evacuations among the occasional causes of this disease. Boerhaave states that he knew an instance of Apoplexy apparently produced by an excessive Hemorrhage from the nose. Peculiar atmospheric constitutions, have also been ranked among the exciting causes of apoplexy; and from causes of this kind, this disease has at times prevailed epidemically. Richter states, that a humid cold, and variable state of the atmosphere, appears to be most favourable to the occurrence of apoplexy. Tiberius states that in the course of a few days, nine persons were seized with Apoplexy in one district. There are many other causes which are enumerated among the exciting causes of this disease, such as organic affections

of the brain and its menings, and the narcotic poisons.

Some Pathologists, confine the term apoplexy entirely to a sanguineous extravasation within the brain, but others include serous effusion which is frequently the case; but there is a difference in the process, by which the blood is deposited and the serum effused. In the latter case, we will find that the patient has been labouring under the disease, for some time previous to the apoplectic attack; and although the serum, acts in the same manner, by producing compression, when it has been deposited in a larger quantity, yet, it is deposited by a much slower process, than the blood effusion, which can only take place by a rupture of the vessles When the ventricles are found to contain serous fluid. Dr Potter calls this disease

Hydrocephalia Apoplectica—

Diagnosis.— The diagnosis of apoplexy is not difficult generally, although sometimes we find it quite so, when we find a person suddenly seized, with a loss of sense and voluntary motion, and at the same time the heart and lungs performing their duty with any degree of regularity, we at once conclude that it is a case of apoplexy. It is distinguished from asphyxia and syncope, by the almost imperceptible action of the heart, and respiration in the latter affections. It has frequently been found difficult, to distinguish it from intoxication, but by attending to the patients previous health, by noticing the general relaxation of the sphincter, or by smelling his breath, we will in most instances be led to a correct conclusion. We are told by the best authority,

that the treatment which should be pursued in apoplexy, will have a beneficial effects in cases of intoxication; but we should always endeavour to distinguish them, as it would be very improper to treat a drunken man, as we would a person labouring under apoplexy. It is distinguished from Epilepsy by the violent agitation & spasmodic contraction of the muscles of the whole body especially those of the face, also by the frequency and brevity of the paroxysm, which takes place in the latter affection.

Prognosis.— The prognosis in this disease has been and still continues to be considered not necessarily fatal, if the patient be treated judiciously. Dr Eberle in his prognosis says "when the sensorial functions are completely abolished, and the respiration is strongly stertorous, intermitting discharges of

saliva &c no reasonable hope can be entertained of a recovery". According to Crabb the word abolish signifies to lose every trace of former existance, now if this be the Drs meaning, I concur with him in saying there can be no reasonable hope entertained of a recovery, for in this state we certainly would consider the person dead. Nevertheless says the Dr, patients do sometimes recover from this affection after the most profound coma &c. If the patient does not start when pricked with a lancet, we can entertain no hope of a recovery. We need not dispair, so long as any sensibility remains constantly putting the hand to the face is very unfavourable. Interupted respiration is a very dangerous symptoms, when the disease attacks with a sudden and severe pain in the head, vomiting, a

a spasmodic rigidity of the muscles, danger is to be apprehended, profuse, cold, clammy sweats are indications of danger. The character of certain corporal habits very much influence our prognosis. When the pupils remain sensible to the stimulus of light, and there is a warm perspiration and regular respiration, or some sanguineous discharge makes its appearance, either from hemorrhoids, or from the nose we may argue favourably.

Treatment. —— The treatment of this disease, we will devide into prophylaxis and cure the form of which we shall speak of at present. The premonitory symptoms such as pain in the head vertigo &c are to be treated by rest, low diets, an abstinence from all fermented spiritous liquors, purging regular exercise, a diminished quantity of sleep, the employment

of issues, blisters &c. If the patients be old and infirm, we may contents ourselves with rest, ~~and~~ low diets and purging at first; but if the symptoms be not relieved, we must proceed with the lancets, regardless of age or constitution, until we produce the desired effects. If these symptoms are manifested, in consequence of the check of some habitual discharge of blood, from haemorrhoids or the nose, leeches may be applied to those parts. When the patients is in the actual paroxysm, he should be conveyed into a cool and spacious apartments, where there is a free circulation of air. All tight clothing should be removed, especially the cravat, the head should be elevated, and the lower extremities may be placed in a warm bath. In those cases where the

patients has been seized, after a full meal, its has been the practice and still is by some to administer an emetic, immediately with a view to relieve the stomach of its load. This practice we consider not only improper but extremely dangerous and demands our most decided dis-approbation, and we believe that, many valuable Citizens have been consigned to the all concealing receptacle of clay, by this treatment, merely for the want of a little scientific conclusion. The first thing to be done is a resort to the lancets; and must not deal sparingly with its, as there is no time to be lost in those cases. We must continue its employment until we have produced a decided effect, upon the system, and repeat its if the symptoms return, and then if the stomach be surcharged,

it will relieve itself immediately of all offending contents; and by these means, we relieve our Patients without aggravating any of the symptoms which we must inevitably do, if we employ emetics. If we are called to see a Patient labouring under Paralysis of the muscles of certain Parts, accompanied with a hard pulse, we frequently can avert an attack of Apoplexy by drawing blood. Much has been said by Practitioners in opposition, to the use of the lancets in this disease, as has been recomended by Dr Potter and a few others; but for conclusion we have only to refer to the success of the different Parties, according to their own statements. The employment of Cathartics in this disease is of very great importance and we are authorized to employ the most active ones, and as the

teeth are frequently clentched, Calomel can be administered with less difficulty, than any of the others, as it can be placed upon the tongue and assisted with the infusion of senna, or the extract of Jalapa, introduced into the mouth with a spoon; and these all may be aided with purgative glysters. Cold applied to the head in form of wet cloths, or bladders of ice is very serviceable in some cases; but we should be careful not to employ ~~them~~ it, if the face is pale and the pulse feeble. Blisters in old and feeble constitutions are sometimes useful. We think a judicious employment of the above means, embraces the most important parts of the treatment of this disease, from whatever cause the disease may have been produced. Our efforts should be directed to the removal of inordinate

vascular action and turgescence within the head. It is thought by some, that this affection is never entirely cured; but we know that it has been cured, without leaving the vestage of ~~this disease~~ remaining; but those cases are not frequent. The patient is generally affected with hemiplegia & is deprived of some one or more of the senses; some lose their sight, some their hearing, & their taste & the sense of smell. The patients diet must be mild and unirritating. Fermented or spiritous liquors must be avoided, unless the patient is in an extreme state of exhaustion, and even then, they must be employed with great care, in marking well the effects produced and desisting on the appearance of any vascular

excitements. Much more might be said but we think any more from us would be superfluous.

An Inaugural Essay
on the
Cellular Tissue

Submitted
to the

Medical Faculty
of the
University of Maryland

for the degree of M.D.

By James A. Mouse of the T. Shore of Maryland

March, 1834.

Investigations into the Composition of the bodies of Animals have given as a result the fact that Animal matter exists under several distinct forms. These different kinds of Animal matter, in organizing, assume a different arrangement of their parts; and these different kinds of organization manifest life differently — in some life presents itself as different than in others from the state in which it exists in the lower class of organized substances.

It would not be uninteresting to examine the substance which is the simplest of the nature of those with which are connected the wonderful phenomena observed in the highest animal substances. This is the Cellular tissue. We shall inquire into, its organization, into what it may be decomposed, and what are the vital phenomena which it manifests. We shall examine it as it is to be found in the higher animals; in the lower, it probably does not differ in any essential circumstance, as analogous modifications to most of those under which it exists in these are to be found in the higher without alteration in the type of the texture, or essential difference in its vital phenomena.

The Cellular Tissue.

The substance to which this name is given is soft & spongy to the touch, extensible and retracts when the extending force is removed, and is of a whitish colour; it is situated at the exterior of the other solids forming envelopes to them to their minutest particle, and it is continuous with itself.

Its texture is described by Haller to consist in, as observed with the naked eye, small plates and fibres conjoined in different directions and leaving small spaces between them. According to Bostock and others, Bordeu considers it to be constituted of mere viscous fibres enveloped in a stratum of mucus. The observations of Bichat coincide with those of Haller. But it appears from an attentive examination by Beclard that this substance presents a difference as it is situated more or less in intimate structures or is found in the larger spaces. By blowing air under the portion surrounding an entire muscle it was transformed into cells with distinctly observable partitions, whilst he found that enveloping a fibre to be, in cohesion, but viscid, and is in his opinion unorganized. This opinion we are not disposed to admit. In this view this portion of the Cellular tissue must be regarded as a common secretion; but the transition to this state being gradual, without any defined line of demarkation existing between this portion and that which is admitted to be organized, it is improbable that it should be the result of a different action. In some places it appears more under the laminar form, in others the filamentous. With the microscope Edwards observed both the laminae and the fibres of Haller and others to be constituted of minute fibres — 'some straight, some bent, some twisted' — which interlaced, and these minute fibres to consist of rows

rows of globules. The spaces — cells — left by the intercrossing of the fibres or the laminae communicate with each other; this is shown by the fact of air having disseminated itself extensively in the cellular tissue in cases of wounds simply, and by many similar facts.

On its chemical nature there is much discrepancy among those who have examined it. It is stated by Fourcroy to be gelatin; but the accuracy of his experiments has been denied. Hatchett states it to be albumen. In this uncertainty in the result of experiment we must resort to analogy for probability. Between the cellular tissue and the dermis so close a similarity exists in their texture and physical properties that the latter can be considered but a modification of the former. It is described by M. Cloquet, Beclard and other minute anatomists to consist of intercrossing white laminae, somewhat denser than common cellular tissue; but the portion of this latter which is situated beneath presents, in the direction of the surface, an insensible increase to near the density of the former. From the practical value of the knowledge much attention has been bestowed on the chemical nature of this structure, and from the agreement of so many eminent Chemists — indeed of nearly all who have examined it — of Ure, Thompson, Henry, Brande, Murray, &c, and also Hatchett — as are to be found of the same opinion on this subject, we can scarcely doubt the accuracy of the result of their investigations. This result is that gelatin is nearly the sole constituent. The conclusion which we would draw from this is not affected by the fact of the existence in the laminae of the dermis of nerves and vessels, as the former would yield albumen, the latter might perhaps a small portion of gelatin. We are, hence [illegible] ed to (&c opinion)

the opinion that the cellular tissue is composed of gelatin.

Its vitality as we have observed is low. Borden and others have even questioned the existence of life in it, and Bichat considers the non divided portion of it as unorganized or destitute of life. But the microscope shows us a regularity of arrangement in the particles forming this substance, as it is found in the large spaces between the organs, which is observed in the collection of particles of an organic nature in which life does not exist or has lately existed, and for a reason which we have stated it is probable the same holds of the non divided portion of it. Doubtless the same degree of life does not inhere in every part of it; as one would consider these portions as possessed of [illegible] life. Its growth is highly marked, more so indeed than that of any other tissue — it is the first we see making its appearance in wounds. With the particular organic arrangement & composition constituting muscular tissue we always observe a capacity for contraction, with the organization & composition constituting nervous tissue sensibility &, with certain forms of it, intelligence; but I doubt full whether the cellular tissue be capable of manifesting any vital phenomenon. It has been thought by some to be endowed with contractility; but the circumstances which have led them to this opinion have by others been referred to elasticity. —

On the importance of legislative enactments for the suppression of Empiricism.

Submitted March 1834.

This
Inaugural Dissertation
for
The degree of
Doctor of Medicine.
Is respectfully submitted
to the consideration of the
Provost
Trustees
and
Faculty
of the University of Maryland
By
Their obt Servant
A. H. Tyson

Baltimore
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To
My Friend and Brother
George S. Gibson M.D.
Whose Zeal and success in the
Science of Nature
and
Whose social virtues make him an
ornament to society
These pages are gratefully
inscribed
By the Writer.

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By the Writer.

In Submitting the following pages to the consideration of the Honourable — The Provost Trustees and Faculty of the University of Maryland for the honours of the Institution under their guidance — The total inability of the writer to mete justice to his subject must at the outset claim their most extended indulgence — While at the same time the Faculty have Reason to congratulate us upon the importance of our selection viz. the importance of legislative enactments for the suppression of Empiricism.

Should this paper be the means of impressing upon some intelligent member of the profession its vast importance to the well being of society, the end of the writer will have been in a great measure accomplished. The great and growing evils of presumptuous ignorance are daily becoming more alarming, and

unless the intelligence of the community can be invoked to put a stop to the mischief we know not where it may ceases. It is truly surprising that society, in all its grades, appears to be totally ignorant in every thing relating to the science of Medicine. It is generally supposed that the hundred Specifics, Salves, Balsams &c with which the daily papers teem, are exclusively resorted to by the lower classes of society, but this is far from being the case - How often is the success of the practitioner baffled, and sometimes completely frustrated by the secret employment of these deleterious agents - how often does he witness the failure of his Remedies - Remedies, which the most diligent and extensive observation of others have clearly established to possess certain curative powers, the cause appears totally inexplicable - censured by his patient, regarded as

unskilful by the profession, he must either in disgust retire from his calling, or buffet the boisterous sea of the world until time has effaced the very unjust impressions his character has sustained — Thus, perhaps, has a man of high qualifications for usefulness, destined to be an ornament to his profession and society, lost all but the consciousness of the Rectitude of his character — this to be sure is dearer than all earthly things, but it will not bring him bread nor will it support a dependant family — Let us now enquire how it is that the Physician whose case we have cited has been what the world styles "truly unfortunate", we will instance a case which came under our own observation. A friend of the writer was called upon to visit the daughter of a very Respectable individual of this place, her parents had suffered her to refuse Medical advice until

disease had effectually planted itself in her system (this is often the case and greatly to the prejudice of the Physician's success) she was found labouring under all the symptoms of acute inflammation of the lining membrane of the stomach, indicated by burning and lancinating pains in the Epigastric Region accompanied by violent purging - The first sight of the patient was enough clearly to establish in the mind of her attendant the nature of the disease. After the most energetic and untiring exertions, three or four visits per diem the most prominent symptoms were subdued; Of the various maladies flesh is heir to, there is perhaps not one where dietetic regimen is to be more rigidly enforced and atmospheric vicissitudes more carefully to be guarded against than that now under consideration - In the most decisive and energetic manner did the practitioner discharge his duty

to his patient and himself. for a few days not
a single unpleasant circumstance occurred to
mar the joyous round which reverberated in
the ears of the exulting Physician at the door
of the patients house "Oh, Dr. your patient is
much better, she appears quite well Sir" —
but ah, in the language of a great American
Statesman, now no more, "the destroyer comes,
he comes to change this paradise into a hell" —
his business, he stated, was to make certain
enquiries relative to a house which the family
had some months previously occupied and
which he wished to rent — thus we see
his work is commenced with deception —
after the family had cheerfully put him
in possession of information which they supposed
he desired, he put his hand on the knob
of the door, returned his acknowledgements
and appeared to be about leaving the
house — but with avidity he seizes the
unsuspecting moment to put into execution

the real object of his mission - There is one question he exclaimed, with emphasis. I have been very remiss in not asking - is the house in a healthy neighbourhood? more so than this was the answer. the one we left we occupied four years, all the family enjoying perfect health. We have been in this house about six months. two or three of us have been quite sick and R. is recovering from a severe attack — I am afraid you judge erroneously observed the cunning Quack - there is a very dangerous kind of sickness going about town at this time, which people don't understand. the Sheep skin Doctors lose all their patients but we, meaning I suppose the sect denominated Thomsonians, find it easily managed - within the last week I have cured ten, and at no one of them was I more than an hour and in the course of one day they were as hearty as ever. It cannot be the same sickness that our R. had. for she has been sick three weeks and the

Doctor says it will be some time yet before she can leave her chamber – Do you not see into that answered her artful interrogator, the longer the Sheep skin doctors attend the longer their bill – they charge for both killing and curing, we only for curing. Innocence ever simple and credulous, conscious of no design herself she suspects none in others – He now commenced talking of secret and mysterious medicines that will cure all diseases —

"They shall have mysteries – aye, – precious stuff
For knaves to thrive by, mysteries enough
Dark tangles doctrines dark as fraud can weave
Which simple votaries shall on trust receive
While craftier feign belief 'till they believe."

The serpent has now entered the bowers of Eden, he gives the most positive assurances that in the course of a few hours the patient shall be restored to health. with this assumption he is permitted to commence operations –

Bricks, hotter than the patient can bear (if I may use the words, because they generally submit to force in their application) are placed to the feet and abdomen of the patient and permitted to remain, unless an apparent total suspension of the vital actions of the economy, or a prostration of nervous energy, resembling death, demand their withdrawal. This under such a course of measures must always to a greater or less extent be the effect. At this stage full doses of what is denominated number six (a compound of pure African or Cayenne pepper and alcohol) the most powerful stimulant with which we are acquainted, are administered every half hour until the most violent Reaction is brought about. The repeated entreaties of the patient to desist in the employment of these agents are disregarded. It is seldom they get through this stage of their operations without some serious consequences. The violent action of the heart and arteries

always the result, most usually terminates in apoplexy, convulsions and death - In proof of this it is stated in one of their books "this is the critical period and if passes successfully is particularly fortunate". This stage is far more apt to terminate fatally in an individual of strong Robust constitution than one whose vital powers are on the decline. The reason is obvious, in the latter this violent superexcitation of the system is much more difficult to bring about - Thus in the former case any one that has had an opportunity of witnessing the Thomsonian practice could not have failed to observe the far greater mortality in this class of their patients" - to continue our case the bricks (the impression of which the patient carries to her grave) are now ordered to be removed from the feet and abdomen of the patient - There is now administered what is termed a sweating powder, this we believe is a compound

of some of the salts of ammonia, the taste covered by an aromatic, under the influence of this agent to use the language of Doctor Murderer "She became quiet and easy. This is the crisis in which the suffering organs of the economy can no longer respond to the influence of their corroding agents - This is the unhappy termination of the case under consideration. The exulting quack believing firmly the cure about being accomplished, assures the family the family the patient should breakfast with them the next morning - he had scarcely left the house before the nurse announced that this "quiet and easy" was the sound sleep of death. ——— When the awful termination of the case reached the ear of the quack one would suppose that if the laws of his country did not arrest him, the eternal principles of justice would haunt down his miserable existence - But that rare cunning we have

have seen exercises upon his first intrusion still bears him up. Hear what he says- "the Sheep Skin Doctors must have been using mercury (although not a particle was given) to a great extent, and so diseased the blood that it was impossible to effect a cure." That is the great mistake persons make in not giving us (the Thomsonians) the first chance, they send for the Regulars, they disease the blood with mercury, then we can do nothing". The admission of the single fact, that he depends upon chance incurs not only the penalty of the violated laws of his country, but of that law which cannot with impunity be violated, for it is expressly declared in that code, that man shall not trifle with the life of his fellow. What is homicide?- any mode of killing a human being. Does not its violation incur the penalty. To the disgrace of our Judiciary, to the shame of the Profession,

let it be boldly and fearlessly told- it does not.-
With what mortification must intelligent and
enlightened Maryland look at her ignorant
Legislators, legalizing Homicide".
We say ignorant, and only wish to call
the attention to one fact in proof of the
charge, and in so doing shall make an
extract from the report of the committee
to whom was referred the Thomsonian
petition, for the erection of an Infirmary
in the city of Baltimore -- "Your com-
mittee have given the subject of this petition
a full and deliberate examination, in their
view of the many and active prejudices
which have at all times opposed the intro-
duction of any new system, and with a
deep sense of the responsibility which they
would assume in bestowing legislative sanction
even remotely, upon any system of doubtful
utility". When and how was this deliberate
examination made? certainly not from the

records of ancient or modern history — We must stand in debt solely to the Solomons of the committee for the very sage conclusion — A new system — that is — all diseases arise from impure blood. — What would these well verses historians say if tols upon the floor of the Legislative Hall, that it originates with the Father of medicine four hundred years before the Christian era? Let them see what induced the Philosophers of those days to investigate the validity of their doctrines — It was the awful mortality consequent upon the assumption — that all diseases arise from impure blood — What was it that exploded this doctrine? The radiant beams of Anatomical science shed their unclouded light upon the divine art. — Does not the inimitable language of the inspired writer tell us to behold man, to study the wonderful beauties displayed in his complicated organization.

Then cannot the profession see the vast importance of throwing light upon a matter in which humanity and society are so deeply involved — Nay, is it not their imperative duty — It may be asked, how is this to be accomplished? — We answer — To petition the Legislature to endow an Institution that will clearly establish in the minds of the community 1st/y that nothing short of a diligent study of nature throughout her vast domain can entitle, or justify man, in taking under his care the life of a fellow being — 2ndly that Medicine is a Science — 3rdly that Quackery is founded in ignorance, and has for its sole object the pecuniary emolument of designing knaves, regardless of the lives and best interests of its innocent and unsuspecting dupes. — Impress but these and other great truths upon the community, and upon our Judicial Tribunals, and they will intercede and bring to merited justice

Ignorance, Deception and Brutality.
We intend at no distant day to exercise our humble abilities to give to this all important subject, a more full and careful consideration, and only regret that we are, at present, prevented from doing so by the necessity we are under of bending all our energies to the acquirement of the details of that profession to the highest honors of which we now aspire.—

An

Inaugural Dissertation

on the

Pathology, Cause & Treatment of

Dyspepsia

Respectfully submitted to the examination of the Trustees Provost & Medical Faculty of the university of Maryland for the Degree of Doctor of Medicine

By

William Stanton

of Fairfield District So. Ca

"The science of medicine is a collection of facts founded on Observation"

1834

Dyspepsia

In reviewing the long catalogue of diseases to which man is subject, there is no one malady which has more pressing claims upon the attention and sympathy of the Physician, none more afflictive to the human family than that brought under consideration. It truly imbitters every joy and dries up every avenue of pleasure; with it the rich man turns away from his luxurious board with loathing and disgust, whilst the poor man without it, enjoys his frugal repast with delight; like Banquos ghost it meets its unhappy victim at every avenue of debauchery, sours every pleasure of the table, and still more, the conviviality which flows from social intercourse. As many and as great as are the blessings which flow from civilization, yet we must deplore the evils which have crept in the train, and we can scarcely need stronger evidence of the fell effects of sin, than is here exemplified in the diseases entailed upon us by intemperance.

Dyspepsia

We do not, however, wish to be understood to mean that dyspepsia is invariably produced by intemperate indulgence of the pleasures of the table, or in dropping the liquid ruby in the pensive mind; but that in the majority of cases where the predisposition exist, this indulgence will seal the destiny of the unfortunate sufferer. Dyspepsia is a functional disease of the Stomach, depending upon nervous debilitation, and Consequently a diminution and deterioration of the gastric secretion Organic loesions of the stomach do exist, and always produce indigestion; but in these sheets we only propose considering difficult digestion, its Cause and symtoms, and point out the most rational Methodus medendi according to our view of the disease — And first of the causes. We beleive that the great predisposing Cause of dyspepsia to be irritation, not in the stomach itself, but in some remote organ or viscus; and that this irritation, when once established, acts upon the stomach by sympathy. The extensive sympathies of this viscus, are too well known

Dyspepsia

to require either argument or elucidation. It has been emphatically styled the centre of sympathies: let us examine for a moment into the nature of digestion, is it simply the receiving of food into the stomach, which is fermented or concocted? or is it purely a vital process immediately and necessarily under the control of nervous influence? It is certainly the latter— Food might be taken without hands for prehension, teeth for mastication, saliva for deglutition, but it never could be converted into chyme without the aid of the gastric nerves— Experments have been instituted, and all tend to prove that whatever interferes with the harmonious action of these nerves, so far interferes with digestion— Anxiety of mind, for instance, suspends digestion as certainly as if the eighth pair of nerves were cut, and according to the old maxim of the schools "ubi irritatio ibi fluxus." This phenomenon is easily explicated, and goes far to establish the doctrine which we will advance on this subject: who, then we would ask,

Dyspepsia

are dyspeptic? should we look to the circle who indulges in the rich viands, the gormands, the sop-perpot with every luxury of the table for which all the ingenuity of the culinary art has been taxed? is it the plodding ploughman who whistles all the live long day, eats his simple fare, and sleeps soundly upon his bed of straw? is it the mechanic who pushes the jack plain, or the manufacturer, who flings the shut-tle? is it the sailor who ploughs the stormy deep, is it the merchant who grows obsequious behind his desk? or shall we expect to find him in the learned profession? No matter where observation reaches, we must acknowledge that if any of these grades of society, he is a thinking man— Men who suffer from intense anxiety of mind, men of complicated business, men who grow pale before the mid-night lamps, men whose misfortune in business has caused them often to fill a suicidal grave! Then we come at once to the conclusion, that whatever circumstance or cause that robs the

Dyspepsia

stomach of its nervious fluid, will give origin to a paroxysm of dyspepsia, and, in proportion to the Repetition of this cause, so is the disease radicated in the system— We are all familiar with the fact that during digestion the mind has a strong inclination to be quiescent, and this assuredly is the intention of nature, as may be exemplified in the case of brute animals and children: "Whatever breaks in upon the mental repose during this period of necessary passiveness, will, by diverting the wanted ac-=cumulation of nervious fluids from the stomach, suspend or weaken the process of digestion— Con-=valescents and delicate persons find it needfull to invoke "tired natures sweet restorer" after meeting with the demands of nature; and such persons if denied the privilege, becomes irritable, more feeble and feverish. This view of the subject though a novel one, is yet predicated upon grounds not entirely specious: When have

we

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we met with a case of dyspepsia occuring in our black population? This, say some is owing to the simplicity of their diet, but I would add that their diet is often half cooked, and most indigestible, mixed too with excess and unripe fruit: On this subject they evince less regard than on any other.— The fact is, theirs is a course of carelessness and unstaying thought through life. When the stomach is filled it begets contentment and a complete apathy to all surrounding objects, they are passive in the world, and their minds are only acted on by impulse of instictive feeling: no towering intellect, no heated imagination, no anxious apprehensions, no disappointed hope to divide the wavering current; no, all is concentrated upon the throne of life, and is there subservient to the great end of repairing the daily waste of the system. How comes it that men are more liable to dyspepsia than women? Is it that

her

Dyspepsia

her, gentleness and exclusion from the boisterious
business of life exempt her? we all know that
the every day business of females requir no
intensity of thought, hers is the placid stream,
the calm sequestered shade; no stormy feelings
come to kindle her passions, no disappointed
hope hangs its laden wings over her, she feels
and pours out her heart in tender tears,
and these relieve all her sadness, while
man must writhe in anguish, and keen
dispair fix upon his heart, and iron tears
forbid to flow over his contracted cheek;
She knows that to man belongs the responsibility,
all the cares and exertions of living, while
she remains the passive looker on and
comforter of his days of labour and restless
nights. Man under a great variety of circumstances
and avocations, is subject to anxiety of mind and
intensity of thought: see him in the field, in the
cabinet, at the bar, in the sacred desk, or leaning

over

Dyspepsia

over the preparatory road to science; all these elicit his every exertion, and require an unbending attention; if he emulate the highest seat on the temple of fame, or climb the lofty hill of science he must wear the knitted brow of care. In infancy, and adolescence, when the mind is yet a blank, and is strange to the perturbations of maturity, dyspepsia is unknown. Idiopathic cases are very rare if they do at all occur — It is generally supposed that sedentary habits are favourable to the generation of this disease, and excess in eating and drinking beget it, but we have shown that females, whose habits are entirely sedentary, seldom have the disease, and that negros who are proverbial for their gastronomy, and are entirely reckless either of the quality or quantity of their food, are alike strangers to the disease. Some wine bibbers, it is true, are dyspeptics, but such as are, we venture to assert that dyspepsia was

antecedent;

Dyspepsia

antecedent; and if careful investigation be made, we will discover that such persons have resorted to the oblivious antidote for the purpose of relieving the precordial stricture and distress incident to disappointed hope, blasted ambition, or to "pluck from the heart some deep rooted sorrow" which incubus like, presses its unrelenting hold, fast upon the throne of life— The remote causes or irritations, which induce dyspepsia, though oftener located in the encephalon than otherwise, are yet to be found to exist in other structures of the body— morbid excitation in the liver, spleen, kidneys, uterus &c, are obviously instrumental in producing dyspepsia. The doctrine is universally taught and believed ~~that such it~~ that such is the importance of the liver in the process of digestion, that when diseased, it will certainly distroy the digestion; but here we see a diseased spleen, kidney & uterus, all producing the same effect, and surely no one supposes

these

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these organs to be in anywise subservient to digestion, some of them being merely glands of waste, and others having no excretory apparatus, but all susceptible of irritations, which are sufficient to determine the nervous fluid or accumulation from the stomach to that part, and in this way the gravid uterus, during its impregnation, is productive of gastric disability; further, to shew how far the mind is concerned in this very distressing malady, we would remark that dyspepsia is a prominent symptom or feature in Hysterical or Hypochondrical persons, while the Idiot, whose mind is a perfect blank, enjoys a complete exemption from its attacks, and while he mutters at the moon, whistles his unmeaning roundelay, grows fat and full of life — hence the justness of the adage "as fat as a fool" — The divisions of Dyspepsia — into primitive and secondary, are of practical utility — The first presents us with that

form

Dyspepsia

form of the disease, which is least under the controul of our divine art, and is according to our views, invariably the result of mental disquietude, exertion of thought &c. The latter forms, though still the result of some remote irritation, will more easily succumb to the resourses of Physic. Having now gone through our views of the pathology and causes of dyspepsia, we come in the next place to the consideration of its symptoms — and of these we shall only notice such as are prominent and easily recognized. There is mostly present precordial uneasiness, at least in the commencement of the disease, sometimes amounting to gastrodynia, cardialgia, flatulence, heaviness after taking food, constipated bowels. Head ache is a very common symptom in dyspepsia, and, amongst other aberrations from Health, we notice a disinclination to mix with society and consequently a love of Solitude — Some of the

Symptoms

Dyspepsia

symptoms enumerated, belong to Other affections of the stomach, but these may be recognized by their diagnostic symptoms. Dr Pemberton has described the symptoms which belong to stricture of the stomach, schirrous &c — The first is attended with pain on attempting to swallow food, and is returned again by an effort nearly allied to hiccough — The latter state of the disease, tho' not so obvious, may be known by negative symptoms, emaciation, and incurable indigestion, and when ulceration takes place, amounting to true cancer, a vomiting of foetid mucus &c. The sallow countenance and haggard looks of the unfortunate dyspeptic, together with the general gastric derangement, are quite sufficient to characterize this fell destroyer of human happiness.

The prognosis in dyspepsia is mostly favourable, unless it is in such cases as we call primitive, and here the difficulty arises

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arises out of the nature of its causes; these being so hard to remove, and so little under the controul of our art. The young student who spends wearisome days and restless nights in pursuit of his favorite object, may hope for a period when this promethean enemy will relax its hold, and he shall again return to the sunshine of health; but no ray of hope comes to cheer the bankrupt in this gloomy cell, no angel of mercy comes to trouble the waters at the pool of adversity. In the secondary form, our success will mainly depend upon the extent of irritation, with which it is associated. If these are simply functional no insurmountable difficulty presents itself: but on the other hand if organic derangement exist our course can only be palliative — In such unpromising cases we must expect to see our best directed efforts prove abortive: and learn since George that melancholy truth,

That

Dyspepsia

truth, that to such hope "enters not here."

We come next to the consideration of the treatment which is most applicable to this disease, and here we shall only point out the indications and the remedies which have been most relied on in the fulfilling these indications; our cardinal object should be, first, to remove the local irritation upon which the excitement depends and in the sec-ond obviate symptoms which are prominent, and always peculiarly distressing — If the disease has originated from mental application we must by an entire change of habits and pursuits en-deavor to overcome it — If the withering breath of misfortune has blown loud and long upon our pa-tient, we must console him with the prospect of better days — and should these Halcyon days be permitted to come we will see with thrilling delight our disperited patient emerge from dust and ashes of affliction — To such individuals as are suffering under primary dyspepsia: the watering place

Dyspepsia

of all others, is best calculated to do them good— The change of melancholy scenes of suffering for those of unrestrained gaity and pleasure of air, of water, and tho' last not least, the exercise accompaning such routs, holds out the fairest prospects of health to such invalids of any other we are accquainted with: we all know the sad associations which spring up when we look upon the paraphrenalia of a late sick room, hence the advantage of escaping from such scenes, and with them, such associations— Medical writers in treating on dyspepsia, are wont to lay too much stress upon the dietetic treatment, and if all that is written on the subject was summed up it would remind us of Sancho's good doctrine who interdicted every dish and left the guest to feast his craving appetite upon a pleasing variety of emptiness— It is generally admitted that much more depends upon the quantity than quality of food— What would be injurious to some stomachs would be agreeable to others, but one thing is evident, that when

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that when the nervous energy is directed from the stomach the less food, and easier of digestion that is taken, the less labour is required for its elimination. The stomach has been compared to a school boy "that when idle allways in mischief" and the conclusion deduced from these premises, is to eat little and often; but we would urge to eat little and not often as the only safeguard to convalescence. Of vegetables, we know of but few that are admissible, of these the farinacious preparations, including grits, rice, Irish-potatoes, soups of every description are pernicious, as it is a well known fact that fluids are of more difficult digestion than solids— Any article which contains the most nutriment in the least bulk, is peculiarly adapted to such cases, as poached or soft boild eggs— fowls, if wild are good— of the tame, none thought to be good except the dunghill fowl and pigeon: wild meats are better than tame; Salts meats better than fresh— Fish are not considered to be of easy digestion, and the manner of preparing

food

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food is not of little consideration — boiled and roasted meats are best, Coffee if used, (which as a cordial can hardly be dispensed with) should be made strong and weakened with milk — Tea acts too powerfully on the nervous system — Chocolate is much better — Tobacco, which is so fashionable in high life, and this so much imitated by the lower class, is justly reprobated, and is to say the least of it, injurious in any form, but least so if indulged in after eating, in the form of a Spanish segar — here it acts more as a sedative, and, at this juncture, gives rise to less waste of saliva, or at least to that portion of it held in requisition for the process of digestion.

We would earnestly recommend that while food is taking, that mastication be done well and slowly — that drinks during meals, or immediately before or after eating, be prohibited, or restricted in quantity to the least possible demand of nature; but if urgent uneasiness is felt after eating, a small glass of good wine may be indulged in: at all other times and under

all

Dyspepsia

all other circumstances, our motto must be "Touch not, taste not, handle not the unclean thing"— Much of the success of the Practitioner, must depend upon the removal of the cause of dyspepsia, and much will also depend upon proper dietetic restrictions or regulations— It is one of the great misfortunes of frail man that he subverts the end for which food was intended and lives to eat, hence, the difficulty of persuading him to retrace his steps. Habit is aptly styled a second nature, and the individual who abandons the luxuries of the table, will acheive more in curing himself than medicine possibly can do ~~itself~~. In the management of a dyspeptic patient, we are called on to relieve a certain set of symptoms, which constantly harrass our unfortunate patient: and here we would observe that the treatment naturaly devides itself into internal and external— The internal remedies are such as give tone to the stomach, overcome the acid formation, expel wind keep the bowels

Dyspepsia

bowels open — The tonics best suited to dyspepsia, are charcoal, myrrh, bismuth, ammoniuret of copper, columbo, chamomile, quassia, the bark of the Liriodendron tulipifera, gentiana, catesbei, or Samson snake root and other bitter vegitables — None of these, however, should be given in alcoholic vinous menstrums — we should commence with the mildest, and as these lose their effects, they should be changed for others, and more potent tonics — The bismuth is peculiarly adapted to gastrodynia, and the ammon. cupri to that form of the disease attended with colic — The antacids, of these lime waters as posessing tonic as wells as antacid properties, is however the best, and there may be circumstances existing, which indicate the necepity of a stimulus — and here ammonia will be advisable: any of the alkalies will answer very well — The charcoal already enumerated amongst the tonics is also antacid — The carminatives, of these perhaps none are more useful than the acorus Calamus,

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calamus, Capsicum, Ginger, but a variety of warm spices are always comeatible — the <u>aperiants</u>, of these the white mustardseed taken whole, as containing an aperient with a carminitive, may be best— Rhubarb, being aperient, & at the same time imparting tone to the bowels, may be useful under certain circumstances— The Comp: Rha pil with the pulvis aromaticus of the American Dispensatory is a useful combination. <u>Of the external remidies</u>. None claims more attention at our hands than exercise & friction. That kind of exercise which is taken on foot is best calculated to give tone to the abdominal viscera, but should never be taken, for, at least, an hour after eating— The maxim tho' a trite one, is well deserving our regard "after breakfast work awhile, after dinner sleep awhile, after supper walk a mile" friction with the flesh brush diligently persevered in every night & morning is a useful auxiliary in

This

Dyspepsia

this disease – and kneading the stomach, as sug-
-gested by a modern Author, is well deserving a
trial – Dyspeptics complain very much in winter
time of coldness of the feet, this very disagreeable sen-
sation will be best relieved by putting the feet into
cold water, and dusting the stockings with cay-
enne pepper finely levigated – We should not omit
to observe in the treatment of dyspepsia, regard
must be had to the state of the Epigastrium –
and if we find tenderness on pressure, it would
be advisable, previous to the exhibition of tonics, to
apply leaches, blisters, and internal use of muci-
lages – There is a state of the Stomach, which, un-
-like dyspepsia, seems to depend upon exaltation
of the nervious action, I mean that depraved state
of the stomach commonly called Bulimia, which
is accompanied by morbid appetite – It is some-
-what digressing from the subject of our Thesis to
speak of this – however, it will have a tendency
to illustrate our Pathological views, & for this reason

we

Dyspepsia

we have adverted to it here. We have in these sheets endeavoured to inculcate the doctrine that dyspepsia was a disease peculiar to thinking men and depended upon want of nervous action or secretion (if I might use the term) and we believe that Bulimia is a disease completely to the reverse of this, and for its treatment requires such remedies to exert a sedative influence over the nervious system and particularly the gastric nerves— such as minute doses of tartarized antimony the prussic acid and indulgences in smoking Tabacco after every meal until nausea is produced

Finis

An

Inaugural Dissertation

On Epilepsy

Submitted to the examination

of the Provost, the Trustees, and

Medical Faculty of

the University of Maryland.

For the Degree of

Doctor of Medicine,

By William Shiselin

Of Maryland.

February 17th 1834.

To

E. Geddings M. D

Professor of Anatomy and Physiology

In

The University of Maryland.

Dear Sir

Except the dedication of this essay as a tribute of respect for your profound attainments in the science of Medicine, and particularly in Anatomy, and for your exertions in the cause of Medical literature; that you may long continue in your present career of usefulness, and that each day may add to your fame, is the sincere wish of

Your friend & pupil

William Ghiselin

1

Epilepsy

Epilepsy has been well described by Boerhaave, a disease in which the patient falls down suddenly with an oblivion of all the senses both internal and external, attended with a violent involuntary convulsion of some or all the muscles of the body, returning in paroxysms and ending in sleep. Epilepsy derives its name from the suddenness with which it makes its attack, and for which circumstance it has been termed the falling sickness. Like apoplexy it is sometimes preceded by a train of symptoms which afford sufficient intimation of its approach, and like that disease it sometimes comes on without any premonitions.

The precursors of Epilepsy are in most cases a sense of fulness and pain in the head, ringing of the ears, flashes of light passing before the eyes, suffusion of the face, turgescence of the vessels of the neck, sickness of the stomach, loss of appetite, vertigo and sometimes vomiting. But the most remarkable of all these symptoms, is one

which has been observed by ancient authors, and which has received the name of aura epileptica, the nature of it can be more easily conceived than described, It has been by some compared to the sensation of a cold stream of water flowing along from a remote point of one of the members, Like it arrives at the brain. In some cases it feels like a slight punctation of the integuments of the arm or leg-" Galen compared this strange phinomenon to the effects, which follow the bite of a venomous serpent, inflicted upon the tongue from whence the poison becomes diffused throughout the whole system," modern Authors have explained this aura by the supposition of their being some irritation applied to the extremities of some one of the nerves which being gradually propagated to the brain along the course of the nerve, excites the paroxysm by its influence on this organ; This is the explanation of Cullen and most modern Authors.

As regards the paroxysm of this disease, it sometimes comes on without any warning; the patient falls to the ground in a state of insensibility

and his whole body becomes violently convulsed, while he remains entirely unconscious of what is passing, and also remains insensible to the most painful impressions. All powers of voluntary motion is completely annihilated and the muscles thrown into violent abnormal contractions, over which the will exercises no controle, The eyes are fixed, rolled upwards, or staring, the pupils contracted or dilated, the face is flushed and livid, the tongue is thrust from the mouth, and may be violently injured by the teeth, the whole countenance is distorted, The muscles of the lower jaw are violently convulsed and sometimes drawn upwards with such force as to fracture the teeth, and the body is frequently bent into a complete Knot,

The organic as well as the animal functions are made to feel the influence of this disease, The heart palpitates violently, the pulse is at first small frequent and irregular, afterwards becoming fuller and slower, The respiration is disturbed oppressed and sometimes Stertorous; The voice

is sometimes altered, and the patient falls with a shriek, Nausea & vomiting sometimes takes place, especially toward the conclusion of the fit, The abdomen is tumified the faeces and urine are passed involuntary, eructation sometimes takes place and semen is ejected by the convulsive action of the ejaculator muscles – In conclusion I may say there is no gesture or posture, which Epilepsy has not sometimes presented.

The duration of the paroxysm as well as the period of its recurrence are extremely variable, sometimes it is over in a few minutes, but occasionally it has been known to continue for twelve or fourteen hours, and sometimes longer, the patient merely having an occasional momentary respite, from the violence of the convulsions – with regard to the period of its ~~recurrence~~ recurrence, it does not in most cases present any regularity, sometimes several paroxysms take place ~~upon~~ on the same day, frequently they are repeated at intervals of one

or more days and sometimes months, according to the observations of some authors, to the full and change of the moon, and cases have been mentioned, where the intervals between the attacks have continued for years - But as regards the influence of the moon over this disease is I believe in the present, advanced state of medical science, wholly denied; -

Children are particularly the subjects of Epileptic fits, and many suffer between the period of their birth and the third or fourth years, and after that time they experience little or no inconvenience from it; It appears during childhood to effect both sexes alike, but in adults, males appear to suffer more from it, than females.

Having mentioned the general character of Epilepsy. I will now speak of the causes by which it is produced, Before this subject many investigations and researches have been made, but the result has been by no means satisfactory

in proportion to the labour bestowed — In relation to the causes of this disease they are extremely variable and may be divided into those which act directly on the brain & those which affect this organ secondarily — It would however appear that something is attributed to hereditary predisposition, and this has been so remarked in some cases that it has been supposed by some that the disease itself is propagated from parent to offspring. It is however more rational to explain the phenomenon by referring it to the predisposition awakened in the children by the similarity of organization and temperament to their parent. Tissot as quoted by Cooke mentions a remarkable case, of a father who had been subject to this disease, had eight sons and several grand sons all of whom were cruelly affected with this disease until their death. Some habits and temperaments are much more liable to this disease than others, The kind of individuals who possess this susceptibility

in the most remarkable degree has been well described by Cullen," for example those persons easily elated by hope and depressed by fear, and passing quickly and readily from the one state to the other, easily pleased and prone to gaiety and as easily provoked to anger and rendered irritable and liable to strong emotions from slight impressions." Cerebral irritation from what ever cause it may proceed from may prove a predisposing as well as exciting cause of this disease, a general plethoric state of the vessels excessive use of ardent spirits, the influence of the passions, and in short all those causes which determine the flow of blood to the head deserve to be enumerated among its causes — To the same head may be referred mechanical injuries of the brain and spinal marrow, the pressure exercise upon the brain or cranium, extravasation of blood or serum, inflammation and softning of the brain, the influence of strong odours, and in fine whatever acts powerfully upon any of the organs of sense —

Habit has been deemed sufficient in many cases to keep up the disease. Cullen speaking of the Epilepsy simultaneus Stokes, that although this may be first feigned, he has no doubt but that the repitition renders it at length real, And Van Swietin, as mentioned by Cooke, says that when paroxysms have existed by strong impressions, a disposition to a future attack will be thereby produced, and he relates a case of a girl, descended from healthy parents and perfectly well, who being thrown into a strong fit, was afterwards on slight occasions affected with the disease for many years.

Besides these causes which act directly on the brain. There are many which prove instrumental in the production of Epilepsy by exciting this organ sympathetically and determining the blood preternaturally to it, of these I may mention gastro intestinal irritation whether it proceeds from worms or from improper articles of food, the influence of teething and many other causes which tend

to disturbe these organs, Epilepsy from these causes more frequently takes place in children who are much expose to this source of irritation, I believe when it arises from these causes, it does not assume the formidable character which it presents, when it is produced by those causes which act directly on the brain. In conclusion I may say the most essential pathological conditions of Epilepsy is, first, Cerebral & Meningeal irritation, second the increase determination of blood to the head which this occasions, and the third the extension of the influence of these conditions to the sensorial and motorial apparatus.

Post Mortem Appearances,

Not having any experience concerning the dissections of persons who die of this disease, I am not able to say any thing concerning its post Mortem appearance, I believe the Morbid appearances on dissecting persons who die of Epilepsy, I believe are often similar to those which occur in apoplexy. The Cerebellum is generally thought by

Anatomists to be the seat of the proximate cause of this disease, Mr Wintrich, as quoted by Cooke, has dissected the brains of a great number of individuals who died of this disease, and in a very great propotion of heads he examined, found the Cerebrum perfectly sound, whilst the Cerebellum was uniformily in a diseased condition, The part of the Cerebellum which he found most frequently affected, was the pineal gland.

Treatment

The first thing to be done, when a person is attack with Epilepsy should be to place the patient in the horizontal posture, and taking such precautions as will prevent him from being injured by the violence of the muscular commotion into which the body is thrown, the head and shoulders should be somewhat elevated, and expose to a free current of air, and something should be place between the teeth to prevent injury to the tongue, All articles of dress ~~the~~ which by their tightness, will prevent a

free circulation of blood, should be loosend, particularly stays and neck clothes, and it is often very serviceable to sprinkle the face with cold water, particularly when the convulsions are confined to the muscles connected with respiration, after the paroxysm is over, the patient should be kept quiet; the head of the body supported, the bowels opened as spidily as possible, and light nourishing food in moderate quantity allowed, the patient should never load his stomach, stimulants to be abstained from and every other cause, corporeal as well as mental which is calculated to disturb the circulation and excite the nervous system. If there be signs of disease action in the brain, a more rigid treatment should be pursued, cupping may be had recourse to, occasionally, and if there be considerable plethora, bleeding from the arm may be serviceable together with keeping the head shaved, and the introduction of a seton in the neck, or a drain is recommended by means of an issue

applied to any part of the body. If worms is suspected, turpentine and other anthelmintics should be exhibited. As regards bloodletting in this disease, I believe it has often been had recourse to, both during the paroxysm and in the intervals. It has been recommended as being highly serviceable in plethoric subjects, but in general I believe it does not appear to have any beneficial effect and occasionally has been found injurious. Therefore it is a remedy which ought to be used with great discretion.

Emetics & Cathartics have been much recommended in this disease, with regard however to the propriety of the former of these remedies, there is much contrariety of opinions. Aretæus, (As quoted by Cooke) prescribed vomiting in Epilepsy, upon the supposition that the disease was occasioned by a kind of pituita determined to the brain, which he supposed might be evacuated by the process of vomiting. Most Physicians however of the present day condemn the pra

practice as being highly dangerous, unless the disease is excited by the introduction of indigestible substances taken in the stomach, as frequently takes place in children. Cathartics are less objectionable and have accordingly been more generally prefered. The Ancients were in the habit of purging abundantly in this disease with hellibore and other drastic articles a course which they were led to adopt by the same motives which led them to the employment of Emetics. In modern times has formed the leading practice in the treatment of this disease, but there is reason to think that though it is frequently highly beneficial, it often aggravates rather than improves the disease, Dr Giddings says cathartics may however when directed with judgement and discrimination be used with great benefit in this disease, But they should not be of the drastic kind, because by exciting a high degree of irritation in the gastro-intestinal mucous membrane which by extending to the brain may augment the disease, Occasional doses of Calomel in small quantitys with Rhubarb,

compound extract of Colocynth & will be the best, or when the system is robust and plethoric the saline cathartics may be used. Cathartics will be especially indicated in children when the disease arises from irritation of the first passages occasioned by worms &c. in these cases Calomel with the testaceous powders & the ordinary vermifuge medicines should be imployed. In addition to these means Diaphoretics have been imployed with a view of exciting a free perspirable condition of the skin, when the surface is dry and febrile, various external means have been resorted to with a view of exciting revulsion, for instance, blisters and sinapisms, Of the narcotics, belladonna, opium, camphor, stramonium have been most recommended in this disease, some of the Antispasmodics also have been imployed with benefit in epilepsy, among these musk, castor and assafœtida are generally supposed most useful, They are of not much consequence in this disease) N.B. Dr Potter recommends very highly the following prescription,

W. Ghiselin

Stramonium ℥j
oxide of zinc ℈ij
sulp of cupri ℈j
Ax, pills, 30

An

Inaugural Dissertation

On

the Question following

Are there such agents as miasmata which acting on the System cause Bilious Fevers?

Submitted to the Examination

of the

Provost Trustees and Medical Faculty

of the

University of Maryland

By

Thomas Jam McGill

Jefferson Frederick County

State of Maryland

"When men so idolize old forms or theories as to tremble at an appeal from them the avenue to improvement is closed Science sickens and the expiring rattle is heard in the larynx of genius Or Science must advance or retrograde is inevitable."

Brown"

Are there such agents as Miasmata which acting on the System produce Bilious Fevers?

In this paper we will endeavour to answer the Question

Many difficulties present themselves to a Tyro in preparing a theory under any circumstances, but his situation is particularly embarassing when the theory advanced comes in collision with or probably in direct opposition to opinions held and maintained by men of experience

For a young man just entering upon the duties of his profession to rise up and oppose his little & limited knowledge against the accumulated wisdom of ages would not only be a piece of unwarrantable presumption but would amount to a direct absurdity- The theory which I propose to advance is as far as I know in opposition to ~~many~~ the opinions of the heads of the Faculty in this Country it is true I do not positively know the views entertained on this subject by all I regret that my knowledge in this particular is

so limited but I have seen or heard no one that has adopted views in relation to this subject similar to my own From what has been advanced it would appear that the criticism alone was intended for my self but my cause lies in this the subject of discussion does not require experiment nor observation (which in our humble opinion alone entitles a man's pages to a perusal) I am opposing theories to speculations (and shall I say it?) prejudices against vague hypotheses— Without further comment or apology I will proceed immediately to give my views of this subject and in the argument I hope I may be able to give every argument that may present itself in opposition to the Theory its fair weight.

The effects of the Changes of the weather or the System from cold to hot & vice versa the electrical barometrical & hygrometrical conditions of the atmosphere either singly or combinedly I would offer as the cause or causes of the following catalogue of Diseases Viz Yellow Continued Remittent and Intermittent Fevers— Pleurisy with and with hepatic

derangement & the whole tribe of Pneumonic affections
Pheumatisom Cynanche Pharyngea & Tonsilaris
Phrenitis - arachnitis, Gastritis Enteritis Hepatitis
Hysteria Nephritis Diarrhoea Dysentery Cholera
morbus and I might enter the catalogue to a page if
I thought proper to particularize the above are sufficient for our purposes - We do not pretend to say
that all the above diseases are invariably produced
by the operations of the causes named thus Consumption may be arise from a Scrofulous Diathesis
or from mal conformation derived from ancestry
but how often are not these states of predisposition
called into actual disease from an ordinary catarrh
improperly treated in this case I would say that
the vicissitudes of the weather acted as a proximate
cause thus we can see that when there are even
exceptions apparently to the general rule also the
causes assigned here more or less to do in every case
either remotely or proximately - Some of the above diseases
may be produced entirely independ of the operation of

the cause. the only mean to adopt this as a general rule and any variation from this must be looked on as an exception to the general rules and have we a general rule that has not its exceptions? It is I believe at this day admitted by all that we can not have an idea excited in the mind unless it be by the operation of the senses on matter either directly or indirectly. I have stated this because I am at a loss to determine the nature of this misterious agent (means) which has never been obtained in an isolated or tangible form From this cause I was not surprised to hear some (Students) attribute to it immateriality this for one hypothesis I leave where I found it as I considder it entirely unanswerable As respected Professor of the Practice of Medicine I am aware is not convinced of its immateriality if he judge from an experiment which he commenced with the assistance of the Eloquent the Lamented De Butts - I can not forbear in this place giving a recital of the experiment which promised so much which was to have put an end to so many dreaming

theories prosing hypothesis and idle speculations
During the prevalence of the Yellow Fever in that
part of Baltimore Called the Point the Dr in 1852 (if
my memory serve me right) procured two bottles which
he exhausted under the receiver of an air pump and
corked in this situation (or filled them with water) thus
equiped the Dr proceeded to the Point pulled out the
corks (or poured out the water) and the miasm occu
-pied the vaccuum - He then proceeded to the labratory
of the University called Dr De-Butts to his assis
tence but Dr DeButts was unfortunately confined to
his room by indisposition - the experiment or analysis
was for this time & for the season given over - But the
succeeding fall proving as unhealthy as the preceding
the Professor had an opportunity a second time of any
lising atmospheric air poisoned with miasmata - the
opportunity was not suffered to pass unimproved - the
empty bottles were again produced again filled at the Point
the assistance of Dr Debutts was again invoked and he
attended, the experiment thus commenced held out every
prospect of a happy issue But alas an unfortunate

negro boy at this moment entered the room and hearing
I suppose of the experiment going on he had a curiosity
to prompt him to look into the bottles and see the thing of
horrors the horrid monster thus securely confined in by air
tight corks and in his explorations he threw both bottles
from the counter they were dashed into a thousand pie-
ces and with them all the hopes of our Professor
The Dr as far as I know has not attempted an analysis
since neither do I think it is to be regretted for in my
humble opinion all his experiments would be likely to
terminate equally unprofitably leaving us and all as
ignorant of the nature of the poison as ever
And what have we learned from the ablest experiments
conducted by the most skilled Pneumatologists in relation
to this matter. They tell us that air is always the same in
the same place and more they have said that it is the same
in all regions of the earth in all latitudes - Air from the sum-
-mit of mount Blanc & Chimborazo and that collected in the
lowest valleys is not found to be different - And can we expect

no light on this subject from illuminating experiment the unwelcome but true answer returns nothing has been, or is likely to be discovered by Chemistry that is calculated to profit us (and it is from Chemistry alone that we can reasonably look for knowledge for correct views of the subject. – All that we have on this subject is ten thousand idle dreams & intricate Theories which for extravagance on the part of the inventor and credulity on the part of those who recieve them is most astonishing – The wild hypotheses of the Antients in relation to the circulation of the blood are sound reasoning when compared to the fancies entertained by the moderns of this mysterious agenent – desolating our land under the name of miasm – there is some good arrising to the young practitioner in the name for if a patient have corns whitlows Phrenitis or yellow fever or more particularly if he should be so unfortunate as to have a case to which he cannot assign a name or ascribe a cause he instantly flies off to marsh miasm or miasmata

or what answers his purpose still better Noxious miasmata
this for the most part is sufficient to cut short enqui
ries from the illiterate who are generally satisfied if the
"Doctors" can pronounce a hard name with a grave counte
nance this all they wish to know of the matter and here all
enquiry and investigation stops

Dr Eberle has in his work on the Practice of Medicine
spoken at some length of miasmata we will take him
up on page —— where he tells us that "Hercules
drained the marshes of Argolis and prevented the return
of Disease which before rendered the Country a dreary waste
He ought in accordance with theories advanced at this
day by such a procedure to have added greatly to the
quantity of miasm generated and thus have made matters
worse for it is by cleaning mill dams, races & docks by
exposing the mud and vegetable matter in the bottoms
of these places that bilious diseases have prevailed over
all the country in the vicinity of such localities according
to some this argument is not answered already will be attended
to hereafter — Dr Eberle says in the second place that "Heat
and moisture are always requisite for the generation of miasmata

and diseases supposed to arise from them are never epidemic except the Thermometer range above 60° of Fahr. The banks of rivers marshy pools in low situations are always best calculated to give out malaria and it is precisely in these situations that we find the most sudden Thermometric & hygrometric variations as we shall see more particularly hereafter. Eberle and a host of others tele us that the Specific Gravity of miasmata is greater than that of atmospheric air and yet he teles us on the very same page "that none of the gases disengaged from vegetable putrefaction exhibit themselves in a ~~tangible~~ sensible form" It then not a difficulty in this. He thinks that from their S G being greater than that of atmospheric air that persons on elevated situations owe their escape — yet when ever it is necessary he can call in a little watery vapour to transport the poison with as much facility as we carry flour to Balt on the rail road Was Professor Eberle (and others his superiors in our estimation) ignorant of the fact that when two gases say Carb Acid Gas & Hydrogen are mixed in a vessel

the heavier at the bottom they will nevertheless displace each other mutually the lighter assuming the place of the heavier and the contrary? then suppose that we had possitively ascertained the specific gravity of miasmata and it was found heavier than atmospheric air could we not find means to carry it to elevated situations without the assistence of aqueous vapour? We will here after endeavour to point out a more plausible use for the vapour —

It also appears from Dr Eberle that aqueous vapour is also requisite for the generation of miasmata as well as for its transportation — He says that "it is precipitated more abundantly to the earth during the first hours after the setting and shortly before the rising of the sun and that persons are far more liable to contract miasmatic diseases when exposed at this time" Dr Dunglison stated that miasmata were generated he did not know how but they were transported by aqueous vapour so that they arose from the earth and as the aqueous vapour is greater as the sun acquires more power so the quantity of this poison generated and carried off must have been greater at midday than at any other time

we should from this infer that persons were more liable to contract disease from exposure at mid day there appears to be a clashing of opinions yet ~~they~~ the cause which we assign is evident in its operations in both instances — Miasmata (it is said by O'Beirne) are capable of being impeded or arrested in their progress by whatever will stop the progression of aqueous vapours Which produces disease in this case the aqueous vapour acting on a certain State of the System or the miasm unfelt unknown miasm? It is to be borne in mind that aqueous vapour is not generated in any appreciable quantity unless at a certain elevation of temperature — Dr Dungli son says that "malaria never acts on the System so as to produce disease unless accompanied with a high degree of temperature" — It is said to arise from marshes and yet miasmatic Diseases are seen to prevail far beyond the influence of stagnant pools or putrefying vegetable matter Some feeling the difficulties of the case say that it is not produced by the decomposition of vegetable or animal matter

As for disease to arise from Dr Eberleys Idiomas mata all that we have to say in relation to this is repeated in a few words - Dr Dunglison says that emanations arising from the decomposition of animal matter are proven to be entirely inoxious nay more it has been affirmed on good authority that they are even condensive to health they may in a highly concentrated state produce a state of asphysia but they have never been assigned as even a probable cause of malarious diseases It is seen above that malarious diseases are never produced except there be a certain degree of heat and moisture present to produce miasmata and it is also said (and proven too) that Bilious diseases do arise from extremes of heat & moisture where there is no vegetable matter present the decomposition of which would produce malaria These are facts from the very best authority. Probably some may advance the following fact as an argument against the Theory advocated and I acknowledge

If in the investigation of this subject we find that the vicissitudes of the atmosphere are capable of producing the diseases in question is it not bad philosophy in us to shut our senses to the effects of these agents and ascribe every thing to the operations of an inscrutable incomprehensible cause shut out from our senses and veiled in obscurity?

In rolling over the pages of Dr Eberle's work I find the following remarks on page 78 — "The tendency of Noxious miasmata to produce intermittents is much enhanced by sudden changes of temperature of the atmosphere. Intermittents are never more prevalent than when the days are very warm and the evenings and mornings are cool and damp." A quotation similar to the above in reference to any other subject would no longer leave "loop or hinge to hang a doubt on" High ranges of atmospheric temperature with a consequent production of a large quantity of watery vapour are in the production of Bilious Fevers the "sine qua non" And why it may be justly asked is there so much said concerning the aqueous vapour? is this the greatest cause in the production of disease?
In this I conceive lies the necessity of our introducing

the aqueous vapour so frequently - We never see bil-
-ious Diseases prevailing to any extent unless there has
been a state or condition of the atmosphere favoura-
-ble for the production of vapour - and the vapour act-
ing in part as a proximate cause on a predisposition
existing in the System which predisposition was ge-
nerated by the very cause that produced the aqueous
vapour produces a Bilious Fever - on this we will
be more explicit presently. To better appreciate the
powers of States of the atmosphere on page in the
engendering of Bilious Fever we will take a cur-
sory view of the localities which are known to give
rise to bilious diseases and compare these situations
with those exempt from disease - For this purpose
I will select Jefferson Freak County Mu remarka-
ble for its good water & health - The Point of Rocks
well known for its intermittents and other malarious
Fevers & New Orleans far famed for Yellow fever

If the reader (as is probable) should be unacquainted with the situations chosen he can very readily select 3 places one healthy another not so much so a third very unhealthy and he will then comprehend what may hereafter be stated more ~~fully~~ clearly — Now in New Orleans the variations in the temperature are far more sudden and greater than they are in Jefferson which is degrees north of it — this would be doubted if there was not an experiment at hand to prove the position a fact familiar to all — In Jefferson the dew deposited in the night on the grass when most copious is scarcely sufficient to damp the shoes of persons walking in the grass immediately before sunrise at the point of rocks there is not unfrequently a fog so dense as to intercept vision at a few paces and in New orleans the deposition of dew is so great in the course of the night as to lay the dust in the streets may now it drips from the house eaves and what does this go to prove? it proves first that the temperature of the atmosphere in Jefferson was not sufficiently elevated to hold much water in solution or that the succeeding reduction in the temperature was not sufficient to produce any great deposition

of water be this as it may it is evident there could be no very sudden change – But at the point of rocks on the immediate bank of the Potomac the reduction of temperature was so rapid as to produce a heavy fog and in New Orleans the temperature of the atmosphere was not only very suddenly lowered but must have been previously much elevated to hold so large a quantity of water in solution – We now pass to the modus operandi of the causes and will soon draw to a conclusion – Suppose an individual in dependent of the effects of hot sun on his system has his abdominal viscera (the Stomach and bowels) particularly predisposed to disease from the use of indigestible aliment putried meat or vegetables a sudden change of diet or by bad water in this State of predisposition he is exposed to the vicissitudes of a New orleans summer might the effect on his capillary system the sympathy existing between the surface and viscera throws the latter already fit to drop into disorder into actual disease it is thus I believe we have all our dysen

dys enterus produced — If from hard study the effect of the direct rays of the sun shing on the head or from a blow or other cause the brain be predisposed to disease a similar disturbance to the one spoken of above in the capillary system is sufficient to determine diseased action to this quarter It would be unpermeable to trespass with a ~~relation~~ further detail of cases as examples in which the vicissitudes of the weather play an active part — But a bilious Disease has not as yet been given as produced by the above causes

Tie a goose before a hot fire for a certain length of time and his liver swells to four times its natural bulk & a man in new orleans has his liver puffed up in not a dissimilar condition not indeed from being scorched before a fire of wood but from a more efficient a cause a fire that burns for twelve or fourteen hours with unremitting violence, hot sun — the liver is not only changed from this cause in bulk there is impairment of function as is clearly evinced from yellow skin a jaundiced hue that marks the whole southern race indicative of a Bilious Temperament. The liver in this state of partial derangement of function only requires an exciting cause which is near at hand to change the partial into complete derangement of function Gastro-Enteritis is not produced by miasmata cold applied

to the feet is assigned as a more common cause the cold acts we think in the manner following the capillaries of the part are debilitated by the action of the cold this effect is communicated to the Brain the action of the Heart is next involved and the blood moves languidly through the vessels nearly at all on the surface it collects in the great venous reservoirs at the right side of the Heart and in the liver waiting a passage through the lungs the pressure of this blood forcing itself on the Heart finally rouses this organ into increase action this is the reaction this is fever and the organ that before was comparatively in a state of Privation is now involved in actual disease suppose the stomach should be precipitated from any cause the intestines the lungs the Brain or the liver is in a state of excitement from the action of hot sun I need not repeat the consequences they are they cannot but be clear to all

The modus operandi of Cold as laid down above differs probabably a little from Dr Dunglisons theory which is that the System is more easily thrown into disease from the action of a lowered temperature on a part of the Capillary System the effect being communicated thence by continuous Sympathy — I have applied the effects said to be produced by miasmata on the lungs to the operation of Cold on the general capillary System or on a part of this System of vessels as the case may be Dr Potter thinks the nerves of the Lungs debilitated by the action of the miasm which effect passing to the Brain is reflected to the Heart but this only accounts for a simple fever I would ask how the liver is involved unless it be in a state of predisposition and from what does this predisposition arise if not from the effects of hot sun — But Dr Potter has the liver diseased without telling how this diseased action is communicated to this organ is it by contiguous continuous or other kinds of Sympathy? it would appear from his views of the subject if I understand him correctly that the liver is alone diseased —

Although I am unfortunately biased in my judgement in relation to the Theories and practice of the French authors still I must adopt the theory of Broussais and make every Bilious Fever in the first instance a gastro enteritis - the sympathy existing between the capillary system & this portion of the alimentary canal is sure to give rise to disturbance if not actual disease in the latter whenever the former shall have been in any way changed from the performance of a healthy function and disease once excited in the Stomach or Duodenum is readily communicated to the Liver by the Ductus Communis Coledochus by continuous sympathy - What is the effect of hot sun on the surface which being communicated to the Stomach gives rise to an irritable State of the Liver? to understand this latter part of our dissertation the reader if he requires information is referred to an essay on the Subject By Dr E Reading recorded in some one of the Baltimore medical Journals the Title of which has escaped my memory - that this State of the Stomach & Duodenum does exist I think is fairly proven either from symptoms or under the Knife - Of the treatment of these diseases I will say nothing my practice

will be under the governance of that most inestimable vol
ume presented to the Faculty by Dr Armstrong and also to
a work on Fever ~~&~~ By Southwood Smith MD of which
our respected Professor of the practice has spoken in the
most elevated terms pronouncing it the best treatise
on the treatment of Fever — I might continue my paper
to a length which I deem entirely unnecessary I have said
enough more probably than will ever be read — But before
I conclude I must beg the forgiveness of Drs Potter & Dunglison whose names I have taken the liberty to repeat frequently if I have departed from a correct statement of facts quoted from their lectures ~~they~~ errors I must beg will be attributed to their proper origin a bad memory — I cannot however suffer this probably the last opportunity that will present itself to pass without declaring the filial affection with which I regard my honoured & Respected Teachers — And must particularly acknowledge the favours conferred by our universally loved Teach of Anatomy &c
To Drs Smith & Dunglison I beg leave to present thanks dictated by heartfelt gratitude for their attention during a weeks

confinement from sickness

My inability to return thanks in a proper manner for the acts of Courtesy received at the hands of my Readers has on me so forcibly that I am compelled to conclude by wishing them many years of health and prosperity.

Most Respectfully

Thomas J. McGee

An Inaugural Dissertation

on

The reciprocal Influence of Mind & Body.

Submitted to the Examination

of the

Provost, Trustees, and Medical Faculty

of

The University of Maryland

For the degree of Doctor of Medicine

By

William R. Rose

of

The State of Virginia.

March 1834.

To

E. Geddings M.D.

Professor of Anatomy & Physiology

in

The University of Maryland

This Dissertation is respectfully inscribed

As a testimony of admiration for his talents,

and

Gratitude for his repeated & disinterested

kindness to the

Author.

On the reciprocal influence of Mind and Body.

In order to acquire a correct and accurate idea of a malady, nothing can be more requisite than a knowledge of its causes, a knowledge which it often requires the greatest research, and sagacity to obtain, and without which, the practitioner will grope in almost cimmerian darkness, perhaps only diminishing the disease he attacks, without ever producing a radical cure. The animal and intellectual portions of our being are linked together by the strictest bonds of reciprocity, and are perpetually acting, the one on the other; exerting a greater influence over our happiness than we are generally disposed to admit, or imagine. It was asserted by Plato, that all diseases of the body, proceed from the mind, "omnia corporis mala, ab anima procedere", and certainly many of them

thus have their origin. It is by the mind that man is distinguished and elevated above the rank of the inferior orders of animated beings, and we daily see him by the exertion of his intellect obtaining the controul and supremacy over his fellow man; this exertion of mind cannot always be borne with impunity, and the corporeal structure in proportion as the intellect is highly cultivated, personal interests involved, and the passions called into play, is brought into a pathological state. Thus we often see men of the greatest genius the victims of disease. The premature exercise of the intellectual faculties, and the aspiration of the passions, producing an excitement of the brain, and disturbing the functions of secretion and nutrition.

The Physician is often called to afford solace to the meteled, "to minister to the mind diseased", and since it will be his duty to investigate with delicacy all its affections, and to make himself acquainted

with its aberrations, in order to ascertain the influence it may exercise over the physical organization. The depressing passions seem to exercise particularly a baneful influence both in the formation, and progress of disease, the mildest of which will often assume the most formidable and dangerous character unless their depressing action is dispelled.

Nostalgia will afford a familiar example; Here we have that longing after home, and all that is dear to us, that feeling of loneliness and retiredness, that brooding melancholy which exercises a sinister an effect over the sick mans couch. Sometimes most appalling is the influence it exerts, particularly in acute diseases. The great mortality among the conscripts in the French armies, was chiefly attributed to this cause, "the most trifling diseases, simple catarrhs, slight gastric, and enteretic affections, &c, became intractible, and few recovered in whom they were manifested."

Even the great Napoleon, under the influence of grief, wounded pride, and disappointed ambition, together with the malevolent persecutions to which he is said to have been subjected, fell a victim to chronic gastritis.

If inflammations are thus awakened, how much more are such depressing emotions to be dreaded, when disease already exists, and how careful should the Physician be by all his skill and talent, to avert the impressions they are likely to produce.

In scurvy also, when any predisposing causes have existed, we meet with the same ominous effects from the depressing passions. The crews of ships on long voyages are said to have suffered terrible devastations from protracted disappointments, and the spread of the malady has been immediately arrested, by the exciting prospect of an engagement with an enemy.

In that protean disease, known by the appellation of Dyspepsia, we have the most perspicuous evidence of the benefit derived from

the animating occurrences of travel, the change of scene, of company, and amusements. These acting as a tonic on the mind depressed by harrassing and long continued illness, tend perhaps more than all the drugs of the pharmacopæa, to restore the bloom to the pallid cheek, and fulness to the wasted form, and in place of the peevishness, and irascibility which so generally characterize the Dyspeptic, he regains his wonted equanimity of temper, and suavity of manners. Many of the virtues attributed to the watering places throughout the country, are no doubt owing in a great measure to the varied incidents of a sojourn among them, and not to any specific virtue of the waters themselves, as we see them drank at home by invalids without any appreciable benefit. When abroad the mind is roused from its lethargy, and its elasticity is restored by the cheerful society, and varied amusements of the place.

The recent Epidemic which sweeping over

the continents of Asia and Europe, at length in its devastating course settled on our own shores, strikingly exemplifies the powerful agency of fear in the production of disease. Among the thousands who fell victims to this appalling malady, it was with many an exciting cause of the complaint. The blanched cheek, the pallid lip, and the trembling frame disclose to us also the effects of fear, and it has even been said to cause the hairs to become grey in a very short time. Terror will also cause an immediate evacuation of the bowels, and a discharge of urine from the bladder. How speedily does shame bring the blush to the cheek, and violent anger not unfrequently produces such deplorable results as an attack of Apoplexy. Day after day we witness violent paroxisms of Hysteria induced by mental perturbations, and the same causes also establish epileptic convulsions, which are very difficult to control when once commenced. By such

the precept of Horace might be beneficially put in practice.

"Animum rege, qui nisi paret,
Imperat: hunc frenis, hunc tu compesce catena".

Religious excitement when carried to excess is sometimes productive of the most mischievous results, and often has enthusiasm on this subject so wrought on the mind, as to produce the most deplorable melancholy, and ultimately the subject of it has terminated his existence in the gloomy cell of some lunatic hospital.

Professor Dunglison in one of his very interesting and instructive lectures on Hygiene, spoke of the powerful agency of mental impressions, in arresting the paroxism of intermittent fever, and relieving even severe cases of Rheumatism, paralasys and other ailments by the application of Perkin's points; but the mystery soon solved, (if mystery there ever was to intelligent minds,) by Doctor Haygarths producing precisely analagous effects, by the application

of wooden points, made so accurately to resemble the metallic ones, as not to be distinguished from them.

Animal magnetism has been practiced in this country and in Europe, for the relief of various maladies; I have been told of a gentleman in this City, who is thrown into a profound sleep, and his fits of the gout speedily arrested by the application of the hands of one of the initiated. "Post hoc ergo propter hoc" is not always true, and I should be disposed to think not in this instance. In the practice of touching for the cure of Scrofula, or kings evil, which existed at one time in England, the effects were no doubt analagous, as one cannot well immagine that any very holy or salutary influence would be exerted by the contact of Charles the second, or any one of his more moral predecessors. It is the cordial of hope which more than all else lends its enlivening and salutary aid to the sufferer, and cheered by it, and the confidence

he upons in the physician who may advise
or the empiric who may chance to practice
his experiments on him, that he rapidly
recovers under apparently the most desperate
circumstances. Deprive him of this hope and
confidence in the skill of his attendant, and
his doom is irrevocably sealed.
No one will doubt the impression of the emo-
tions and passions of the heart, in violent
moral excitements, death is said to have been
produced by the rupture of that organ, and
morbid affections of the heart, chronic irri-
tations, and hypertrophy are to be sometimes
traced to the violence of the passions.
Doctor Jackson of Philadelphia asserts that
several cases of enlargement of the heart
have been under his care, induced by mo-
ral causes originating in domestic affections.
The stomach is also remarkably susceptible
to moral impressions, those of a painful na-
ture impeding, and interrupting digestion, and
even in some instances producing

nausea, vomiting, and syncope. The sight of a severe surgical operation not unfrequently by induces nausea and fainting, in those unaccustomed to witness them, as I have experienced myself and seen frequently occur with others. Rage and jealousy are productive of an increased flow of bile, and ambition and avarice, both highly exciting passions are ~~[illegible]~~ fruitful sources of monomania, or even occasionally of mania. Thus we observe each passion and emotion of the mind, exercising its sway over those who by yielding to their dominion, have allowed them to gain the mastery.

Not less powerful is the impression made on the mind by the corporeal structure, when debilitated, and worn down by the ravages of disease. Here is a most striking influence exercised over the mind by the derangements of the hepatic functions, we witness often the greatest irritability, the most unpleasant forebodings, dejection of spirits

and almost despair, without any adequate external cause existing for their production. In Hepatic diseases, says Doctor Johnson in his work on tropical climates, like Shakspeare cowards "we die many times before our death" but in Pulmonary affections a striking contrast is exhibited in their effects on the mind, for even in the last stage of phthisis, "Hope springs eternal in the victim breast", and the final catastrophe stands a long time revealed to every eye but that of the patient. Syphilis is a disease also in which there is a depressing influence exerted over the mind. I have often called on to witness the lamentable effects of epilepsy, and paralysis, where we often find an almost total extinction of the intellect, and in the mind that once glowed with all the fire of genius and "infinity of thought", almost every faculty seems obliterated, and scarce a vestage of its former brightness is left.

Cretinism is a disease which I believe is confined to the old continents, and is found chiefly among the Alps, though it is also said to exist among the Pyrenees, the Valleys of the Tyrol, and the mountains of China, and Tartary. This terribly disgusting affection is followed by a complete destitution of intelligence, and sensibility, the intellect being almost totally extinguished and the subject of it sunk nearly to a level with the brute creation. The Pellagra a disease if possible more horrible than the former, occurring in the Lombardo Venetian plains, is attended by a train of mental disorders; melancholy, moroseness, hypochondriasm and not unfrequently a strong propensity to commit suicide. The patient preferring to terminate his miserable existence by drowning, so commonly does this occur, that some writers on the disease have designated it by the appellation of Hydromania.

Among many other exemplifications which might be adduced of the influence of disease on the mind, I will only enumerate those developed in the gastric organs, as being particularly interesting to the physician as well as to the moralist. They are chiefly so as their irritations are often productive of such explosion of passions, and moral agitation, that they appear unaccountable to those who are not aware, or can not appreciate this influence over the moral faculties.

To Eli Geddings M.D.
Professor of Anatomy and
Physiology in
The University of Maryland

This Thesis is dedicated as a testimony of the of the estimation in which his superior talents are held by his friend and humble servant

The Author

Scarlet Fever–

Scarletina is taken from Scarlatto an Italian word and means a deep red. persons who labour under this disease presents the appearance of a boiled Lobsters Shell. This disease first made its appearance in Spain in 1610 eight years after it raged in Naples a number of years after this in London And not untill 1735 it reached America there are some writers who think that there is but two varieties of Scarletina. and that the only difference is in the degree. just as you would find in the distincts and the confluents small pox. I think it is generally admitted at the present day that there are three varieties of Scarletina. which are clearly marked. and which requires different treatment. unless in cases where the gradually shade into each other. Scarletina simplere is the first variety and will scarcely require Medical attention, the second variety or scarletina Anginosa is of more frequent occurance and will require a very prompt and energetic treatment. In the third variety or scarletina Maligna we have

Continued

the disease in its worst form, and less man
ageble than either of the other varieties. Scarleti
=na affects the skin tonsils and the mucous
membranes and frequently terminates in death
it has baffled the Skill of the Profession. and
but a few to the present day. can congratul
=ate themselves with having treated this dise=
=ase to their own satisfaction

Scarletina simplex generally commences with
a chill - succeeded by fever. fullness in the
head Lassitude with prostration of Strength na
=usea and sometimes vomiting the Skin becomes
florid And hot. the throat is more or less inf
lamed and is painful; the tongue is cover=
=ed with a white fur. And through this fur you
will discover the papilla of the tongue presen
=ting their red points which will furnish
very satisfactory evidence as to the exist
=ance of the disease. in a majority of cases
the eruption makes its appearance about -
the second day. in a number of red poi
=nts, about the face and neck. Which grad=

Continued

=ally spreads its self over the whole body in the course of four and twenty hours. The eruption is greater about the breast the joints or the bending of the joints. owing doubtless to their being abundently supplied with blood vessells, and to the fact that they are kept more secluded from the air. and consequently much warmer, sometimes the face is swelled these are the principle symptoms in this variety of the disease subject to variations, in three or four days the desquamation of the cuticle takes place

In scarletina Anginosa the symptoms are more violent The skin is of a deep red the fauccies are considerably inflamed An uneasiness is felt in the throat the voice is thick and deglutition is difficult the tonsils and fauccies appear red and swelled. as in cynanchey Tonsillaris. for the most part this goes on to the formation of superficial ulcers or specks. When these are numerous they cause an unpleasant foetor

Continued

and the throat is clogged up with a viscid phlegm;; as the disease continues to increase so are all its symptoms greatly aggravated the difficulty in deglutition becomes so great as in some instances to render it allmost impopible. The neck appears as if bound round with a cords. the eyes and nostrils becomes red. Which shows most clearly that the Mucous membranes is concerned in this disease the eruption is introduced by a hot and dry skin and a pricking sensation of the needles; all these symptoms increase. the skin becoming more affected. till it is of the Colour of a boiled lobsters shell. In proportion to the affection of the eyes and nostrils so is the tendency to delirium. in the onset of the disease the pulse is frequently Quick and full with some tenseneps This however, is supposed to be a deceitful pulse. P. frequently in this form of the disease the eruption does not take place for three four and sometimes five days. In violent

Continued

Cases the eruption appears sooner. And in such the head becomes much affected — and death frequently closes the scene; on the third day; sometimes a purging comes on which must be arrested. sometimes the pulse is 120 with marks of fullness which favours the idea of its being inflammatory. and which calls for the use of the Lancet There is sometimes a cough without much expectoration. in the decline of this disease there is marks of great debility and deafness is sometimes left. dropsical swellings follows in The third variety or scarlatina maligna is the worst form of the disease. And not unfrequent it sweeps thousands into eternity it is ushered in by rigors. giddiness headache restleness faintness heat and soreness of the throat vomiting or purging. An efflorescence appears at irregular periods. from the second to the third day. a remarkable tumefaction of the fingers sometimes takes place. which with the erysipelatous tinge they soon acquire. is suppi=

Continued

-cient to characterize the disease. The throat is affected with inflamation, and frequently you will find dark slough. with an inflamed base. with a very unpleasant smell. Sometimes the parotid glands becomes affected and are painful to the touch. Inside of the mouth there frequently appear a brown or dark crust. they appear stuffed with a viscid phlegm. deglutition is difficult the breathing is laborous and sometimes they appear as if they would suffocate. the nostrils are red and discharge an acrid fluids - which frequently excoriates the parts over which it runs. when diarrhoea comes on it must be regarded as unfavourable. The accompanying fever is typhoid. The pulse is small feeble and irregular; and often from the very commencement there is delirium or coma. In this form of the desease there is great prostration of strength. and when convalescence takes place it is very slow. these are - some of the Symptoms of this distressing disease which varies very much accordin

Continued

to the type it asumes. the throat and tonsils suffers very materially and frequently a slough ing takes place and the patient spits up large Quantities of phlegm which is exstremly disagree able and foetids. this getting into the bowels or trachea brings on inflamation which frequent =ly proves fatal. sometemes the throat and tonsils are effected when there is little or no fever and sometimes a hoarse cough ~

The measles is the only dis =ease which is likely to be confounded with Scarletina. but by a careful examenation of the eruption its colour and the time of its appearance. we shall at once be able to distinguish the disease. In scarletina the er =uption appears about the second day. in the measles not untill the fourth day. In scarletina if you pas the hand over the surface. you will not persieve any rough= =nes. in the measles you will. In se= =arletina the skin is of a red and Shining appearance resembling the Shell of a boiled

Continued

crab or lobster. while in Measles it is near the colour of a raspberry. In scarletina the fauces are considerable affected and are painful. a hoarse cough with little or no expectoration In measles there is an obsti=nate and harsh cough with a tough acrimonious discharge of phlegm and the Lungs are evidently affected. In scarletina the eyes are red and watery yet they can bear the Light without much inconvenience; in measles the eyes are red and watery. with intolerance of Light. with sn=eezing the fever is generally inflammatory, but when Measles is complicated with Cynanche Ton=sillaris then there will be considerable diffi=culty in distinguishing the one from the other but here we must draw our conclusions from the appearance of the tongue &c

When scarletina assumes either of the last des=cribed varieties it will require a very strict attention to all its symptoms and an unceasing effort on the part of the practitioner and yet in dispite of all

Continued

over efforts the disease frequently proves fatal sometimes in a few days at other times not untill several days have elapsed: we find from its most simple form to its most Malignant they gradually run into each other and will require great judgment on the part of the practitioner in his prescriptions

Prognosis, when favourable there is a diminution of the febrile Symptoms. the heat and redness of the skin is diminished. the skin becomming brown together with a disquamation of the cuticle is regarded as favourable the swelling subsiding the falling off of the Sloughs and filling up of the ulcers the pulse becoming less frequent Sleep returning and becoming more natural the appetite returning is viewed as favourable; An increase of fever together with the fiery redness. the throat becomming more painfull. and the swelling increasing. a discharge of blood either from the Mouth or bowels. The breath becoming offensive. the ulcers in the throat becoming-

Continued

dark or black. the pulse weak and feeble and a diarrhoe are allways to be regarded as unfavorable. In this condition or State of the disease it is not unfrequent that death Kindly Steps in And relieves the patient of all his sufferings

Its Pathology it is a general received opinion that scarletina arises from a specific contagion. and has a latient period of four or five days. Others think that it is doubtfull whether it be contagious or not. and appear to draw their conclusions from the circumstance of its prevailing occasionally as an Epidemic; but here let me ask does not the Mumps and some other diseases prevail Epidemical and yet they are Manifestly contagious I am inclined to think that Scarletina is evidently a contagious disease. and attacks persons of all ages. it is thought by some that children. and young persons are more subject to this disease than adults. for my own part I am not prepared to admit that there is any peculiar susceptability; in children

Continued

Or young persons to receive this disease; but that a greater number of children and young person have the disease cannot be denied and can only be accounted for; from the fact that there are more children and young persons to take the disease than adults, not only so many of these adults may have passed through the disease in its mildest form while in=in=fancy. It has been a matter of dispute with men of learning whether scarletina can be ta=ken more than once, in the general it can=not. yet there may be persons who may have secondary attacks of this disease, just as they do in small pox and other contag=ious diseases. having thus passed through the Considerations of this disease I shall now speak of its Treatment.

In the first variety of this disease you will sca=rcely find it necessary to give any thing. some times An Emetic of Ipecac. or the Tart ant. et. potash will be sufficient together with some of the Neutral salts. or Calomel in a small dose

Continued

And keeping them cool will generally terminate the disease In the second variety we should allways direct our attention to the most prominent symptoms and to their severity and then prescribe accordingly. If called early to the patient and the fever appears to be considerable, with increased arterial action with pain and greatfullness in the head Venesection with then be proper; or the application of a few Leaches applied to the temples will frequently give great relief. this ought to be followed by an Emetic should not this relieve a gentle purge should be given If the throat becomes verry painful and deglutition difficult a mustard plaster applied to the throat and kept on for a short period so as not to produce a blister. or it may be rubed with the volatile Linnament - sometime a blister applied immediately to the Neck - will be attended with a happy effect. the state of the bowels should never be neglected, and costiveness must be avoided the Neutral Salts will sometimes be sufficient

Continued

Calomel in small doses will be found valua
=ble. The saline mixture as a refrigerent may
be given to advantage or the nitrate of potash
with a small quantity of the Tart. ant et potas
will frequently act as a diaphoretic and in
this way prove highly beneficial to the individ
ual. The sponging of the body with cold or tepid
water is recommended as a valuable agent the
soreness of the throat forms no objection to its
use. It acts by cooling the surface and ver
y frequently it terminate the disease. If the ap
=plication of cold water should produce a
chilly sensation the water ought then to be
used either tepid or warm. the fumes of
hot water with a small quantity of vinegar
will often give great relief to the throat
when the head is very much affected I have
no doubt but the application of Ice to it
would be very beneficial. These are the
principle remidies to be employed in this
variety of Scarletina

In Scarletina Maligna as the Symptoms are

Continued

different. We shall find it necessary to vary our remedial agents. This form of the disease is generally ushered in by rigors and great prostration of strength. the disease evidently take on the character of Typhus fever. this circumstance we aught never to loose sight of as it my direct us in our treatment. If called early to administer in this disease. An Emetic of Vart ant et pot. or Pulv Ipecac would be proper. as soon as the operation is over the Bone set Tea given alternately with the Snake root Tea. this will frequently bring on diaphoresis. and will ~~very often~~ terminate the disease Cathartics in the first stage of this disease is recommended and will doubtless be proper should the above means fail in arresting the disease the patients strength must be supported by Bark. Quinine. camphor. Ammonia or the acetate of ammonia Wine Whey and such other article as will give support If Diarrhea come on this must be checked by astringents. The

Continued

Condition of the throat will claim particular attention. the application of Mustard to the part for a short time so as to excite irritation will be advisable. inhaling the fumes of warm vinegar will sometimes give great relief. the mouth and throat aught to be frequently examined and kept clean by means of gargles. which may be made of capsicum ann. in a decoction of Rose leaves with a small quantity of Honey. this will often prove beneficial by cleansing the ulcers which you find on the fauces and which gives the patient so much pain. a small quantity of Muriatic acid droped in Honey is highly recommended. some have recommended blisters to the part but if they are employed it aught to be in those cases where there is no disposition to gangrene. the volatile liniment rubed on the throat. has also been advised Various and many are the remidies imployed in this disease. yet it is a melancholy fact notwithstanding the best directed efforts.

Continued

of the physician. Death triumphs over his Skill and thus terminates the sufferings of the patient where recovery does take place the individual will remain in a weak and debilitated state for days and sometime for weeks.

Dr Gregory states that permanent deafness is frequently left by the disease. of which I can say nothing. but would suppose that it might be correct.

Dropsy is also mentioned as succeeding scarletina and generally takes the form of anasarca. but sometimes ascites. This ought to be treated on general principles bleeding purging and the Gentiaceæ and such other means as symptoms seems to require. I believe in the early stage of the disease the Jalapin and the Bi Cart - of potas. as purgatives will be found valuable

The Belladonna has been recommended as a preventive in this disease. of which I can say nothing

Finis

An
Inaugural Essay
on
Chronic Enteritis,
for
the degree
of
Doctor of Medicine
submitted
to the examination
of the
Provost, the
Trustees, and Medical Professors;
of the
University of Maryland
by
Theodatus Garlick
of
Brookfield Ohio.
March 1834

To

Eli Geddings M.D.

Professor of Anatomy & Physiology

in the

in the University of Maryland,

these lines are respectfully dedicated,

as a testimony of respect,

for the talents which have elevated him

to the highest honours of his profession,

of esteem,

for the social virtues which make him

one of the most brilliant ornaments of society,

and

of grateful sentiments,

for the many instances of disinterested

favours,

by Your much obliged

and humble servant

Theodatus Garlick

Chronic Inflamation of the mucous coat of the Intestines especially, of the Colon, is a disease of very common occurence; it is also one which no doubt is often mistaken for some other: in proof of this I will mention a case that fell under my own observation; when four Physicians in consultation pronounced a case to be an affection of the liver, and treated it as such, in about three months the patient died, and upon a post mortem examination, the Intestines exhibited ample proof that the disease was no other than an inflamation of the mucous membrane of the bowells, principally the Colon. The symptoms attending this disease are pain and soreness in the abdomen, although this may be slight except when pressure is made on its external surface; but when this disease takes on a sub-acute form, the pain and soreness is quite severe: upon coughing, sneezing, or any motion that may produce a sudden concussion of the abdominal viscera, will almost always produce pain and a sense of soreness; there is also

a good deal of langour, and a general lassitude of the muscular system; the pulse is small weak and sharpp, or what is termed by some, corded, the hands and feet are usually cold through the day; slight febrile exacerbations occur towards evening, accompanied with flushed cheeks, and a sense of great heat in the palms of the hands and soles of the feet, Diarrhea accompanies these symptoms, in some instances almost constantly, but sometimes alternating with costiveness, this is quite common; the appetite is very variable and capricious, it being sometimes entirely gone, at other times the patient desiring the most hearty food, and will even eat with the greatest avidity. If the disease be far advanced, when food is taken into the stomach, it will create a good deal of uneasiness, untill it be evacuated by the bowells, and upon an examination will be found to be but very imperfectly digested

At this stage of the disease the patient begins to emaciate very rapidly, the abdomen becoming tympanitic, the alvine evacuations are preceded by tormina, and the evacuations themselves, varying much in their appearance, being sometimes slimy, and mixed with more or less feculent matter and small in quantity, or purulent and bloody, or abundant and watery, or perhaps of a dark, or ash colour. The skin is generally dry, and of a sallow hue, the sleep is interrupted; the tongue is almost always smooth and red around its margin, with a brownish streak through its centre; the temper is very irritable and morose; the patients countenance exhibiting a complete picture of suffering; this form of the disease may continue for a long time, without destroying the patients life: but in a majority of cases the

patient emaciates rapidly, great weakness ensues, the mouth and fauces become aphthous; the patient sinks very rapidly under these, together with a general hectic irritation, and finally terminates in death.

Causes

The most common causes of this disease is the use of crude and indigestable articles of food, and other irritating substances, acting directly on the mucous surface of the bowells: sometimes it is the consequence of the acute form of this disease, though doubtless this is seldom the case; the influence of a cold and damp atmosphere continued for a length of time, especially when aided by unwholesome diet is apt to bring on this disease, also the frequent use of drastic purgatives, together with all other irritating substances, admitted into the bowells may produce it.

Prognosis

As it regards forming a correct prognosis in this disease, I should think it attended with some difficulty, owing to the difficulty of ascertaining the precise condition of the mucous surface of the bowells, also of the condition of the other viscera, as they very often participate in this disease; when the disease has been of long standing, and the patient is much emaciated, ~~and~~ the bowells a good deal tympanitic, and the lower extremities anasarcous, I should look for a fatal termination, But on the other hand, if the patient passes a good constitution, and there existed not much emaciation, even if there was great soreness and pain in the intestines, I should anticipate, that with proper treatment the patient might recover. I am inclined to think, that at any time before a confirmed hectic sets in, that there is a tolerable

chance for a recovery: my reason for thinking so is, that nothing is more certain than, that extensive ulcers of the mucous surface of the bowells do completely cicatrize, this I have twice seen in dissecting

Post Mortem Appearances.

The ulcers upon a post mortem examination do not always present the same appearances, though we most always find ulcerations of different sizes and shapes in the mucous coat. they are most frequently seen in the colon, sometimes we find a number of red patches, with fungoid elevations, sometimes there exists extensive tracts of ragged ulcerations alternating with fungous elevations, and we not unfrequently find portions of the intestines so much contracted, as scarcely to admit of the passage of a large sized bougie: sometimes we see some of the ulcers partly cicatrized and

some of them completely so: which circumstance is certainly indicates that the disease is not incurable, when it has advanced on to Ulceration. M. Trailliet says in an account which he gives, of a dissection of a patient who had died of this disease, that the Ulcerations, were of an ovoidal form, varying in diameter from six to ten lines, with fringed edges, surrounded with a brownish circle, beyond which the mucous membrane was sound; they occupied principally the lower portion of the Ileum: their surfaces presented marks of incipient, advanced, and complete cicatrization

Treatment

In the treatment of this disease, nothing can be of more importance, than proper dietetic regulations. I know of no disease, which calls more loudly for a strict diet than this: in fact we must rely more on a well regulated regimen, than on medicine; it must be of the

mildest kind, and such as leaves the least feculent matter in the intestines, therefore it should consist of farinaceous substances served up in a liquid form, such as sago, rice, tapioca, barley, oatmeal and arrow-root constitutes the best articles; boiled milk, rye-meal mush, boiled rice, with sugar may also be used: all solid animal food, and other articles which are hard of digestion, should be entirely rejected; no treatment however skilfull or judicious in other respects, can effect a cure, unless the patient strictly and perseveringly abstains from all articles of food of a solid or irritating character. After we have given directions for the regulation of the diet, we should next attend to the state of the bowells; if they are costive, they should be evacuated by means of a mild laxative; the Oleum Ricini constitutes one of the best, if necessary it should be aided by means of an Enema

perhaps it would be well to give some
mild laxatives, whether the bowells are or
are not costive, in order to remove any vitia-
-ated secretions or other acrid substances that
may, at the time be lodged in the intes-
-tines. M. Brussais rejects all laxatives in
this disease, on the ground, that by their
stimulating or irritating the bowels, they
are productive of much mischief: while
others argue, that the vitiated secretions,
and acrid results of decomposition in the
bowells will be more apt to make an injur-
-ious impression on the bowels, when suf-
-fered to accumulate on the phlogosed state
of the mucous membrane, than the occasion-
-al transient stimulus of laxatives. I think
they should be resorted to occasionly, though
when a frequent administration will no doubt
be attended with evil consequences, when
they are given, it would be well to combine eight
or ten drops of laudanum; mild enemas are of

the greatest service, Among the other useful remidies are leeches applied to the abdomen, they should be applied from time to time as the patients strength will admit, and accor-ding to the activity of the pulse; blisters, are also serviceable; pustulating with tarter-emetic is recommended by some, rubefacients may also be used with some advantage, Among the internal remidies, are nauseating doses of Ipecacuhan, or what would be still better, the Pulvis Doveri in small doses Dr. Eberle recommends the balsam copaiva in the form of an emulsion, also the Spirits of turpentine, I have seen them both used and I think with no advantage whatever, when these articles are given, they should be com-bined with mucilage, and small doses of Opium or the Extract of Hyosciamus. Dr. Abercrombie speaks in favour of the sulphate of copper in conjunction with opium, in the dose of half a grain of each, gradually increasing the

dose to the amount of three grains of the former, to a half a grain of the latter, giving it three times a day —

In accordance with the regulations of the University of Maryland, requiring of every Candidate for Graduation, an essay on some medical subject, I have endeavoured from what I have observed in the limited experience I have had, and from information gained from books, and other sources, to fulfill that requisition. I am well aware of the imperfect manner in which I have executed this task, and must therefore throw myself upon your indulgence.

An Inaugural dissertation

On Therapeutics,

Submitted to the examination of the

Provost, Trustees and the

Medical Faculty of the

University of Maryland,

For the degree of Doctor of Medicine,

by Jno T. Leigh,

of Maryland.

To

Professor E. Geddings, M.D.

My Dear Sir,

Allow me to flatter myself with the hope, that the sincere feeling of admiration and attachment which creates in me a disposition to proffer you this insignificant tribute, will also render it an acceptable ones.—

Respectfully &c,

Jno. H. Leigh.

Materia Medica may be considered under its relation to Pharmacy, and Therapeutics. It is under this latter relation that it is important to the Physician, and it is under this view, that I shall treat of it in my discourse. Therapeutics is the end of Medicine, and to be sound, it must be based upon general Anatomy, commingled with Physiology. But before we treat of a Science, it is proper that we should take a review of it, and trace it up from its commencement to the present time. But perhaps I should be encroaching upon the patience of my readers, were I to indulge in a retrospective description of Medicine in its most antiquated and neglected state: and under this conviction, I will endeavour to avoid any such result by commencing this history from the days of Galen. It was he Galen who gave the first ideas of general Anatomy. He said the body was composed of three parts — Simple parts or organs, humors and Spirits. Besides these, he said there were componnd organs, and it was this, that laid the foundation for general anatomy. Galen was also the first who maintained that fever was distinct from inflammation. The first idea of specifics was taken from his theory — He thought Emetics attracted certain humors from the blood, and that purgatives also attracted certain others, and instead of attending to the causes

of abnormal or Pathological conditions of the body. This idea absurd as it may seem to be, has regulated the use of these means, more or less up to the present era, in the treatment of fevers. Paracelsus succeeded Galen and successfully undertook the subversion of all of his notions. The idea of the Magnetizers, which is now undergoing examination in the city of Paris, was laid by one of the followers of Paracelsus. The Doctrine of Signatures was next in vogue. It was thought there were certain substances in nature, that resemble certain organs in the body — as for instance, the Pulmonaria was conceived to resemble the Lungs, and that in all diseases of this organ, the pulmonaria was the article, most effectually, to secure its Physiological functions. Borelli next in Italy, started the mechanical doctrine — ie, attempted to explain the phenomena and functions of vitality on mechanical principles; and thus we see too many, of these notions still prevalent and like the hand of a Tyrant crushing the progress of Scientific Medicine. After Borelli followed the Chemical doctrine — Then the doctrine of Solidism, which was maintained by Cullen and modified by Brown. Brown added vitalism to the Solids, and thus we may percieve it is only from some time in the last Century, we may date

the commencement of physiological medicine. We are now upon the right basis of investigation – ie, analytical or general Anatomy; or the elements of the organism, and their vital forces and functions. Medicines cannot remove the cause of disease, nor cure disease it self. They are only modifiers of the forces of the different tissues, and it is upon this principle, and in relation to this fact, that we shall establish the claims of the different articles of the Materia Medica, to the title of remedies. It is only in this way that we can study Materia Medica properly and advantageously. An agent in order to be a medicine, must possess in the first place, active properties, capable of modifying the tissues of the body ~~acted upon~~ into which it may come into contact. In the second place, it must be of such a nature, that it can be employed with benefit in the treatment of disease. There is a marked difference between medicines and remedies – as for example, gymnastic exercise in the open air &c &c are remedies, and sometimes the best too that we can use; but it certainly would be an impropriety and misapplication of our language, to call them Medicines. There is a great analogy between Medicines and poisons, and indeed many of our medicines, nay many of our most esteemed remedial agents strictly belong to the class of deleterious substances. There is a difference too between aliments and medicines – Aliments

as we all know are acted upon by the Stomach & Intestines in such a manner as to effect assimilation, and thereby contributing to the reconstructive process of nature, which is not only necessary for our comfort & ease, but indispensably requisite for the continuance of our very existence. The animal economy is constantly tending to a decay, and indeed it would most speedily totter, were it not for the abundant resources which surround us and the readiness with which we obey the instincts of nature. Medicines on the contrary act on the lining membane of these parts without being decomposed; and many of them pass into the circulation, in the possession and exercise of all their peculia properties.
In the second place we must examine the means of ascertaining whether a medicine possess medical qualities. Color was thought to be a mark of virtue by the ancients, and particularly credited by Linneus. There is some truth in this, but there are many exceptions. Taste and Smell are better means, than the sight, but there are exceptions also to this—, as for example Gamboge, Belladona, and many of the mineral preperations, as Calomel, Tart Emetic &c, have little or no taste, and still are poisonous remedies, or at least very active—, while extractive, Tanin, and Gallic acid do

not affect the smell much. We must make these two senses assist each other, and thus we may tell by the combination of these senses the class of many medicines. As for instance bitter is tonic, acrid is purgative, and pungent stimulating. Demulcents are hardly medicines, but are remedies. Botanical affinity is pretty good – also chemical analogy. Chemistry within the last fifteen years has done much for us in determining the virtues of Medicines. But Chemical analysis is to be carried no further than to seperate a body in to its proximate principles. This is the plan now pursued. Lastly experience, and this is by no means infallible; not more entitled to the implicit confidence claimed for it, than when it was thus characterized by the great father of Medicine, falax experientia. There is a true, and false experience – In fact, experience, can not exist in Medicine. The only positive and definite way of arriving at a knowledge of the effects of medicines, is by experiments made in a healthy state of the body: Experiments multiplied, and well observed, then is the only way, that we can ascertain the effects of our remedial agents. Experiments on this most plausible and elucidatory plan, are now in operation in Germany by Dohna. A number of young men are now engaged, philanthropically

engaged in making experiments upon themselves, while in the enjoyment of a most perfect and harmonious functional operation, and it is much to be deprecated a similar course is not adopted here and in other Countries. It is by this step, that we can arrive at the true modus operandi of the agents we are daily calling in to requisition for the amelioration of those symptoms which are so characteristic of Physiological derangements. And in our present deplorable state of imperfect knowledge of their signs, nay pathological indications, how is it possible for us even in this enlightened day, to unfrock disease of its havock and calamitous terrors. I am aware of no course so well calculated to remove that veil of obscurities which our Science is so replete with — I am totally unacquainted with any superior practicable means which would afford so ample opportunities for extensive induction, and thereby furnishing us with the positive effects of our medicines. Having now examined whether a medicine is entitled to that appellation, it seems meet, we shall consider in the next place, the parts acted on by these agents. Before we can understand disease, we must know the connexions of the organs — Before we can analyze its phenomena, it behooves

us to have some knowledge of general Anatomy, and in order to acquire this information, we must study Special Anatomy. The Tissues of the organism are in many parts intimately fused together — As for instance the skin and mucous membranes, are composed of Cellular Tissue, Nerves, Blood vessels, muscles &c, and yet each of these tissues may be affected seperately; and in order to combatt each of these pathological states, we are impelled to study the complicated, but beautiful machinery of man, analytically. Organized bodies contain four ultimate principles, or elements, Oxygen, Hydrogen, Carbon, and Azote, besides Calcium, Iron &c to give them form and consistence. Vegetables, have generally three, sometimes four. Animals have sometimes five & six combinations. There is a great disposition in the animal body to decomposition, because the oxygen does not as it were, saturate the Carbon, Hydrogen and azote. Heat has a great tendency to putrefy the body, at least the fluids, as is manifested in the fevers of Tropical climates. The blood soon putrefies in these cases, the solids not so soon. This putrefaction is evident before death, in many cases. The Cellular Tissue is more like vegetables, in its relations to external objects, for it does not seem to be easily acted on. The Nerves, Muscles, and Parenchymatous structures are —

most easily acted on. The whole organism is composed of globules, or a plastic amorphous substance; and nothing that is not capable of assuming this form, can enter into the composition of the body. The whole organic form may be reduced to two primitive types – viz, Globules and coagulable fluid, and that these by their various modification of combination, produce all the organs and fluids of the body. Our aliments are reduced by digestion and nutrition to their proximate, though not ultimate principles. Globules and coagulable fluid then, constitute the elementary tissues, and the first of these is the Cellular. This Tissue is formed into Serous, as when a ball entering the body forms a Serous Sac, of the cellular membrane. By pressure it becomes condensed, but still it is cellular membrane. It is the most extensive and widely diffused of all other tissues. It forms the Serous and mucous membranes every where. The Cellular Tissue is the grand basis of all the other tissues – viz, membranous, fibrous, Nervous and Granulated. The membranous forms the Serous and Mucous – The fibrous, resistent, contractile and elastic – Nervous, brain and Nerves – Granulated, the Glandular. The Serous membranes pour out

a fluid or habitus, and hence they are admirably suited for a free and gentle motion of the organs which they envelope. And that this is the only and peculiar province of this Tissue, seems manifest from the fact of great inconvenience resulting from the suspension of its faculties. If the arachnoid which is a serous tissue, is adherent; the patient instinctively seeks repose - he cant walk about except at the expense of his comfort and ease, nay except at much augmentation of already excruciating pain, and considerable detriment to himself, and hence rest and the reclining position is most rigidly enjoined. If the Pleura is inflamed, there is immediately experienced a difficulty of breathing, pain &c, &c. If the Peritoneum is similarly affected, the patient is almost suffocated, he cannot breathe without experiencing the greatest pain, and respiration is performed by the muscles of the thorax, in order to relieve the suffering organ. And we witness in this pathological condition, a still more decided and wiser step in the instinct of nature, in its activity and invaluable aid to the physician, in supplanting the ills of human life. Costiveness is by no means an extraordinary symptom in Peritonitis, and need I ask why the in-

telligent pathologist hails it as a favorable indication? In fact, is it not a work instituted for the afflicted, in obedience to that instinct, of which I have already more than once alluded. And would it not be deemed officious - culpably officious in the Physician to direct his feeble efforts against the wise and salutary operations of the suggestions of nature? What does a very distinguished medical Gentleman of this Country, affirm in his Principles of Medicine, when treating on this subject? "Medicinal prescription is a secondary consideration, it is to be invoked only as adjutory, to relieve certain symptoms, and is always to be regarded as merely subservient to the more important and profounder operations the economy can be made to sustain by dietary proceedings."

We have now seen that the compound machinery of man may be analyzed. But it was not my intention, nor did I attempt this analysis. It was merely my province to show that such an analysis could be effected, and that it was not uncommon in the University of Maryland to witness demonstrations from the Anatomical Chair, amounting to nothing less than the analysis of the human frame.

The body is composed of solids and fluids. The blood furnishes all the fluids — Fluids sometimes form a persistent part of the organs, — as the aqueous humor of the eye &c. The persistent parts of the body, are made up of solids and fluids. The circulating parts always fluid. The solids and fluids have a reciprocal action upon each other. The fluids form a part of the structure of an organ, and when we speak of a change of structure, we should not confine ourselves to the solids alone, but consider the fluids also. There are three principal causes of disease — viz, difference in quantity of blood — difference of quality — and difference in distribution; and we should recollect that we are capable of acting on disease through the medium of the blood. We can abstract from or add to it — We can influence in some degree its quality — and we can also in some measure direct or modify its distribution. The quantity of blood may be increased or diminished pretty much at our pleasure, — It may be increased by a nourishing diet, — and it may be at pa-

dily lessened in bulk, by a converse course, or by a more prompt and direct course which is technically called Phlebotomy. Again it may be altered in quality by strict dietetic regulations, and copious depletions from the arm and other parts by cups and leeches. It may be controled in a great measure in its distribution by the joint effort of blood letting and vomiting – also rest, and much may be gained by attention to attitude &c. For instance if there be a preternatural determination of blood to the head, we would endeavor to restore the patient, by cold applications to the head – bleeding from the arm and affected part – sinapisms to the feet and ancles, and the head considerably elevated. Here position would be an object worthy of the Physicians profoundest consideration. What could we expect to accomplish if we were to neglect this all important remedial agent, in any of the determinations of the vital fluid to the great nervous centre? Would not the aforesaid means be entirely subverted by this oversight? nay, would not the Physician be raising with one hand, and pulling down with the other.

An

Inaugural Dissertation

On

Chronic Diseases of the

Nervous System.

Submitted to the examination of

the Provost Trustees & Medical Faculty

of the University of Maryland,

for the degree of Doctor of Medicine

by J. L. Cabell. of Virginia.

March 20th. 1834.

Chronic Nervous diseases.

There are few diseases to which the human frame is liable, that might not with some propriety be denominated Nervous, if it were always philosophic to make prominent symptoms the basis of our clasifications. Such indeed is the intimate connexion between the nervous and circulatory systems that derangement in the latter, is almost always indicated by a train of symptoms referred to the former. accordingly among the primary leading symptoms of fever are to be remarked that mental & muscular languor and all those uncomfortable sensations which indicate a disordered state of the nervous system.

But there are nervous affections supposed to be independent of any such febrile irritation and possessing other characteristics of Chronic diseases; to these the distinctive appellation "Diseases of the nervous system" has been applied, and in this restricted acceptation the terms is here employed.

In investigating the nature of these diseases, the inquirer finds a combination of all the difficulties in which the subject of medical speculation is involved. The tracing effects to their causes always a matter of difficulty is here of necessity peculiarly so; and in no structure of the human frame is the knowledge we derive from modifications produced by disease so limited as in that of the nervous system.

The disease called Chorea depends upon a peculiar irritability or mobility of the nervous system, different however from that condition which characterizes Hysteria, because the effects are different; but of the physical alteration in the intimate structure of the nerves, dissection affords no information in either case, unless indeed, as some have supposed, the nerves are larger in persons of the nervous temperament of which these diseases are considered to be more symptoms. Analogy and synthetic reasoning clearly demonstrate that the morbid phenomena of asthma depend upon an altered condition of the pneumogastric nerves, excited, where a strong predisposition exists, by the slightest irritant, and yet in the absence of any appearance of organic lesion "we are not authorized in inferring that asthma is entirely independent of such a condition."

In our ignorance as of that fluid which with the rapidity of lightning conveys impressions to the brain & of the nature of that process by which the impressions so conveyed are appreciated by the mind, our acquaintance with the condition in which these acts are perverted must be small indeed.

The fact that the first symptoms of febrile irritation are those indicating a disordered state of the nervous system & the

possibility of thus explaining the action of many causes and remedies have induced some pathologists to attempt an explanation of all the phenomena of nervous disease by reference to some particular state of the vascular system. Thus a Dr. Parry of Bath as quoted in the Notes to Gregory's practice of Physic, asserts that "nervous diseases generally depend upon excessive determination of blood to the brain", appealing to symptoms, and the effects of remedies, to sustain his position - His reasoning is ingenious but far from being conclusive. Many cases brought forward by him, do indeed prove an excessive determination of blood to the head & as a consequence which none will deny, nervous symptoms supervening; but none of them proved that Chorea, Hysteria, Mania &c. consist essentially of undue determination to the head - He says "Surprise and astonishment, which stimulate the sanguiferous system, are frequent causes of these diseases; while fear debates and syncope suspends them, because they depress the action of the heart & arteries." We shall see presently that fear and the depressing emotions are as frequently the remote causes of many of these nervous affections, as those of a more exciting character - Such a simplification as that proposed by Dr. Parry by confining the attention of the physician to such measures as are calculated to remove a determination to the brain

conflicts with the experience of the best practitioners.
While it is highly probable that Arterial blood is the proper
stimulus of the nervous tissue, & that nervous, is often dependent
upon vascular excitement, yet this is not invariably the case;
A female suffering from profuse Uterine hemorrhage, exhibits
at first all the appearances of extreme debility, but in a short
time the carotids beat violently and other signs of vascular
excitement are manifested. Here in consequence of the
great debility of the frame we have high nervous irrita-
bility induced, by which the action of heart is
renewed and carried beyond its natural force. Here the
indication would be, not to take away blood, for the loss of
blood was the cause of the mischief, but to exhibit opium
largely for the purpose of allaying that great nervous ex-
citement upon which the symptoms of increased vascular
action depends. Thus then we see that nervous excitement may
arise as well from vascular debility as from undue deter-
mination to the head. Indeed this principle is every
day recognized by the physician and surgeon under the
term "reaction" which is defined to be an organic instinct
tending to resist the effects of any noxious power in the
system. There is a peculiar irritability or morbid
susceptibility also dependent upon debility and atony, exhib-

ited in Chorea, hysteria & Chlorosis, not necessarily and not generally connected with signs of determination to the head, but characteristic of that nervous temperament of which these diseases are strongly symptomatic.

The effects of Prussic acid & other poisons which are not taken into the blood and produce deleterious effects before a determination to the brain can be elicited, manifestly shew that a diseased action can take place in the nervous system independent of any such determination.

While an attempt has thus been made to refer nervous diseases generally to a particular state of the circulatory system, Dr. Southwood Smith followed by Dr. Eberle has made fever essentially a nervous disease. We have already remarked that the primary symptoms of fever are those which indicate a derangement of the nervous system; Dr Smith then thinks that the remote cause acts primarily upon the nerves & owing to the connexion between these and the heart & arteries, the latter are necessarily deranged. Dr. Eberle differs only from Smith in saying that the Capillary system which is more closely connected with the nervous system, than are the heart and arteries, is brought into a state of morbid excitement before the latter are deranged. Granting then that determinations to the brain do take place in some instances as when narcotic poisons

6

prove fatal, yet even here the substances first act upon the brain & through it upon the whole nervous system.. Broussais attributes nervous diseases to a state of irritation of the brain and spinal marrow, defining irritation to be "the condition of an organ, the excitation of which is carried to so high a degree, that the equilibrium resulting from the balance of all the functions, is broken"; and it is a law of the animal economy that irritation existing in any organ causes a determination there, which however is entirely secondary & generally dependent upon some pre-existing disease in the part itself or in the nerves distributed to it. Thus Hysteria, Hypochondriasis, Chlorosis & Chorea are probably, as we shall see, diseases of the organic nervous system & yet in the progress of the affections, the organs supplied by this system become so much affected, that Hysteria & Hypochondriasis have received their names from this supposed seat. I do not mean to say that these organs are only affected in the progress of the disease & never primarily disordered; for it often happens, according to Pathologists, that the nerves receive a morbid modification from the organs in which they are distributed, which they reflect on all other organs, either through their anastomoses, or through the mediation of the brain & Spinal Marrow." Yet even here it is probable

that the nerves were predisposed to take on diseased action by the existence of the nervous temperament; for the Uterus, Ovaries, Stomach, Liver & Spleen have often exhibited every variety of disease without inducing Hysteria or Hypochondriasis. The temperament, it is true, may be acquired & generally will be, whenever disease has long existed in any of these centres of Sympathies.

Dr. Rush, while he admits that Hysteria is seated in the Nerves, contends that Madness is seated in the blood-vessels of the brain. Dr. Sharpe very justly remarks that it admits of doubt, whether the irregular vascular action in the brain constitutes an essential condition of insanity, or whether it be only one of the consequences of the primary cerebral irritation. The action of causes in producing this disease and that of remedies in removing it, favour, I think, the latter ~~hypothesis~~ view.

Dr. Rush admits that the "predisposition extends to the nerves & that part of the brain, which is the seat of the mind, both of which, when preternaturally irritable, communicate more promptly diseased action to the blood vessels of the brain".

If then the brain can be so affected that the symptoms of mental derangement continue, even after the necessary steps have been taken to remove the diseased action of the arteries, I see no plausible grounds for considering

that disorder in the blood vessels can alone give rise to the affections of the brain, especially since this theory does not satisfactorily explain all the phenomena of Mental derangement. Many examples cited as confirmatory of the views of those who believe determination to the brain to be the proximate cause of all nervous diseases may be more philosophically ranked as the exciting causes. So frequently indeed does increased vascularity precede these affections that it must be a matter of extreme difficulty to determine positively its absence.

"Life, according to Beclard, consists essentially in the reciprocal action of the circulation of the blood & innervation; death always following the cessation of such reciprocal action". These gentlemen would then make all interruption of this reciprocal action depend upon disorder in the circulatory system; we have mentioned some cases, I think, in which the disease in the brain was primary, & independent of increased or diminished flow of blood.

Dismissing then this subject, which after all is probably a matter of little or no importance & interesting only to the speculative inquirer, I will mention some of the principal causes of these affections, delivering

therefrom a basis for simple classification & a few general principles of treatment.

In these diseases we have frequent examples of that kind of predisposition which is derived from progenitors dependent occasionally upon bodily conformation and more ~~frequently~~ especially upon an irritable state of the nervous system which characterizes the Nervous temperament. Much ridicule has been wielded against the doctrine of temperaments & perhaps justly against the extent to which the doctrine has been carried, but without assigning any predominance of one fluid over another, I am inclined to think that there are manifested modifications of the animal economy to which the terms Sanguine & Nervous temperaments may be applied.

Mr. Brachet a late writer on Hysteria & Hypochondriasis carries out the doctrine so far as to determine by it the seats of diseases. "Hysteria", he says, as quoted in the Baltimore Medical Journal," cannot originate in the lymphatic vessels, for the temperament in which this system predominates, is the least exposed to it." & applies the same objections to its being considered an affection of the blood-vessels. Certain it is that in some there is a greater irritability and susceptibility of the nervous system, such as charac-

terized females especially at the approach of the menstrual period- Some writers consider it a disease of which Hysteria, Chorea, Chlorosis &c are symptoms and not distinct diseases. There are however some material differences in these affections which entitle them to separate consideration- The nervous temperament is frequently acquired and the diseases which are induced by it, are particularly Hysteria, Chorea, Chlorosis, and Hypochondriasis-

Again the Sanguine temperament, which is indicated by their fair skin, ruddy complexion and other signs denoting a loose organization of the vascular system predisposes to those nervous diseases which are generally connected with inflammatory action or dependent upon increased flow of blood to the brain- as Apoplexy, & some cases of Mania &c-

a predisposition arises also from the slow operation of those causes which when more powerfully exerted become the exciting causes, as disorder in the abdominal & pelvic viscera in the case of determinations to the head in the latter-

The influence of the mind over the body is one of the most frequent predisposing causes in many of these nervous diseases

and especially in those which are attended with intellectual derangement. Thus Pinel makes those who cultivated the imagination most subject to mania while he never knew an instance of it in a mathematician Chemist or natural Philosopher. The immoderate exercise of the imagination has indeed been at all times considered a striking symptom of the disease;

"The poet, the lunatic, and the lover
are of imagination all compact;"

The passions and emotions are more generally considered as Exciting than predisposing causes, yet the long & constant, rather than the sudden operation of any of them may often induce a predisposition which will require other causes for its full development. In this way the Melancholic & nervous temperaments are often acquired & become more fully developed by the existence of Melancholia, Hypochondriasis &c.

The Exciting causes are too numerous & varied to be detailed here, but it may be remarked that many of them may be traced to causes whose operation is in so many respects similar as to justify us in classing them in a subdivision of the whole. Thus Chorea, Hysteria, Chlorosis & Hypochondriasis are excited often by disorder

in the pelvic & abdominal viscera, grief, disappointed love, terror, consciousness of guilt &c. While others as Apoplexy, Mania &c can be traced to causes which act more directly upon the brain.

The former have been with plausibility referred to the organic nervous system as their seat. The torpor of the secretory functions, the disorder in those viscera to which this system is largely distributed, the effects of certain passions & emotions which from remotest antiquity have been considered as connected with this system, all clearly indicate that disease functional or organic, exists in this important branch of the nervous system.

Again in Apoplexy, Epilepsy, Palsy, Tetanus &c the functions of the brain & animal nervous system are more particularly disordered, as exhibited by loss of sensation & moral & mental manifestation, convulsions, paralysis &c. In some of these we find manifest indications of determination to the head as the exciting or proximate cause of the disease, while in Tetanus & Hydrophobia the operation of the causes are as yet unexplained. Epilepsy seems to be a connecting link between these two classes for while it is often manifestly

dependent upon vascular turgescence in the brain, it may also be traced to functional disorder in the abdominal and pelvic viscera, and like Chorea & Hysteria is often an indication of a peculiar irritable or nervous habit.— Many of these affections are indeed intimately connected and their running into each other by insensible degrees is mentioned as one of their striking peculiarities. None of them can exist long without some degree of mental imbecility resulting.

For the diseases referred to the organic nervous system, the indications are clear & are such as are generally adopted with success. To remove the visceral obstructions which cause or keep up the disease & to allay that irritability of the frame which is induced by the proper administration of substances which act powerfully upon the nervous system as Antispasmodics or by the milder operation of tonics.— The judicious practitioner will however be guided by symptoms and modify his treatment according to those general principles, a proper attention to which will distinguish him from the ignorant empiricke. The details of treatment as produced by peculiar complications are to be found in the works on Practice.—

On the treatment of Apoplexy, Epilepsy &c much has been written. Here unfortunately we have not the same prospect of success as in treating the diseases of the 1st class, for generally an irreparable injury is done before we have sufficient warning of the danger. The feeling practitioner will then do all in his power to alleviate the sufferings of the wretched subjects of these diseases; for of "all the ills that flesh is heir to" there are none more harrowing than those in which the malady is communicated to the mind and "reason totters on her throne."

J. L. Cabell.

An Inaugural Essay
on Lepra Tuberculosa
Submitted
to the Examination of the
Provost, Trustees & Faculty
of Physick
of the University of
Maryland
for
the Degree of Doctor in Physick
on the 17th day of March
1834
by
Samuel John Carr
of South Carolina
Member of the Anthropological, Geo-
-graphical and Asiatical Societies
of Paris. Late
United States Consul Genl. for the Empire
of Morroco. —
Baltimore Md. March 3rd 1834

To
E. Geddings, Esquire,
of South Carolina
the most enlightened medical
philosopher
his state has ever produced
Now
Professor of Anatomy & Physiology
in the University of Maryland.
This Treatise
is respectfully inscribed
in token
of the authors admiration
of his varied talents
his public and private
Virtues

—"—

Baltimore February 26th 1834

—"—

Lepra tuberculosa

This is a lymphatic disease and was well known to the Hebrews, Arabians, Persians & Greeks. Arabian authors have left us highly colored descriptions of the malady as it existed in their day. Among these may be mentioned Rhazes and Hali Abbas

This disease in all its forms was one of the most common scourges used by the Almighty in his government of the Jews (which was a pure Theocracy) for such violations of his laws as it was prescribed for.

Authors comprehend under the term lepra tuberculosa or elephantiasis, a leper which shows itself upon the integuments assuming the form of tumours, tubercles or fungosities.

M. Alibert in his diseases of the

skin (vide Maladies de la peau par M. Alibert.) describes two varieties of this disease 'lepra tuberculosa leontiasis' and 'lepra tuberculosa elephantiasis'. The first is a rare complaint; always affecting the skin of the face, lips, voice & ears; making the countenance resemble somewhat that of a lion, whence its name

It has also been called Satyriasis, by Galen for a similar reason. Of this variety I have never ~~never~~ met with an instance: although I have been in countries where tuberculous leprosy abounds sporadically, (in various parts of the North of Africa).

But # the second variety, 'lepra tuberculosa elephantiasis', is sometimes met with in our own country; particularly in the Southern

States, and in comparison with the frequency of other chronic com-plaints, it may also be considered a rare disease in temperate climates.

Presenting itself always in such latitudes with peculiar characteristics, totally different from those which it exhibits in tropical countries.

This, it will be observed is diam-etrically opposite to what M. Alib-ert asserts of the character of this disease - viz - "Le climat n'apporte point de modifications à la lépre tuberculeuse: elle présente partout les mêmes phénoménes; partout elle exerce les mêmes ravages" —

It is my opinion that M. Alibert never saw a single case of any other elephantiasis, than French elephantiasis. And gentlemen, it is

scarcely necessary for me to observe that whatever is French, is different from every thing else. There is French nature and there is human nature. Every body knows this. The truth is, the state of the fine arts in France has arrived at such a degree of perfection and cheapness; that scarcely an author writes in the present day who does not illustrate his subject by splendid plates and drawings, in which the success of the work depends more on the design and execution of the artist, than the talent of the author. The critical reviews likewise whose business it is to guide and preserve the discrimination of the public; and prevent the undue encroachment of one branch of learning upon another, very often contain laboured

disquisitions upon the quality and accuracy of the drawings & engravings, and style of the work generally.

When French writers shall learn to obey the first commandment, which prohibits the manufacture of any graven images; and the likeness of any thing that is in the heavens above, or in the earth beneath; or in the waters under the earth: then gentlemen, and not till then, will we have more philosophy from them

Broussais is a strong illustration of this. Decidedly the greatest medical philosopher France has ever produced. Did he ever make any engravings? Are any to be found in those profound works of his which have established a new era in medical Science? not one.

When Monsieur Alibert's folio edition of 'Maladies de la peau' appeared it almost surpassed in vanity the publications of the Dilletanti Society of London. Three hundred graven images of diseases of the skin! The medical world were instantly convinced ab inspectione that it was the greatest history of all affections of the skin that ever was written. There were no doubt among them many accurate sketches of the morbid phenomena which he found this disease to exhibit in France. But let me ask what was the substantia materia; The rei per summa capita recencio; of the whole of his observations on lepra tuberculosa. Why gentlemen here it is - viz - "Il est demontré que

, cette éspéce de lépre affécte Spé-
, -cialement l'appareil lymphatique.
, La substance graissense semble
, s'accumuler dans les cellules
, du tissu muqueux, les membres
, affectes grossissent avec rapidité
, et deviennent monstreux." Here is
almost word for word the opinion
of many writers on the same subject
who had preceded him. It was already
known that the vital equilibrium of
the lymphatics must be destroyed
before this disease could be produced

Let me return to Mons. Aliberts'
first assertion — "that climate never
, modifies elephantiasis; that it in-
, variably presents every where the same
, phenomena; uniformly commits
, the same ravages". This it is which
caused me to exclaim that Monsieur

Alibert never saw any but French Elephantiasis. This disease is common throughout the northern part of Africa. Baron Larrey (although no pathologist,) describes its appearance in Egypt, and its pathognomonic characters there, differ widely from those assigned by M. Alibert. In Tripoli and the oasis of Fezzan, it abounds,- but with modified Symptoms and Signs; and shows that the Baron was entirely mistaken concerning its predisposing causes which he ascribes to the incessant action of humid air or putrid water on the feet and legs; such as the waters of rice plantations, they being unwholesome because of the quantity of animal and vegetable decomposition perpetually going on in them, which coming

in contact with the feet and legs loosens their texture and afterwards tumifies and disorganizes those parts

Now there is not a more dry or arid climate upon the face of the globe, than those countries; where not one of the predisposing causes cited by the Baron are found to exist. Yet this disease is more common there than in Egypt. In the regency of Tunis, Bled el jereed Bey-ship of Constantine, Algiers and Tlemsen, every fourth or fifth man is afflicted with this disease. In the kingdoms of Fez, and Morocco, and the province of Riff, 'tis the only disease which stares at you both in town and country.

All these countries are high and mountainous. The rains begin on an

average about the 20th November and continue to the middle of March, sometimes later. The rest of the year every thing is parched up, & not a leaf is to be seen. The winds prevail alternately from East and West, occasionally from the South in the Summer when it brings the Suffocating Sirocco. The height of the Atlas mountains you well know. Half way to their Summit which is above the clouds, they are inhabited by the descendants of the aboriginal Berbers; called by the Moors & Arabs, Shilloghis.

A more hardy, active, hospitable and independant race of men do not exist. Their ancestors retired to these mountains, upon the conquest of their country by

the Arabs from Yemen in the Seventh century. They have never been conquered This is the disease by which three fourths of them make their exit from this world.

The wild Arabs living to the South of these mountains, between the country of Tafilelts and the great desert, /part of which country it is well known is below the level of the Atlantic ocean/ I was credibly informed in Morroco, are likewise subject to the same disease. So much for the Barons predisposing causes, which sounds very strange to me for I hold that there is no such thing in the world as predisposition to disease, Separate from disease itself.

Gentlemen, Professors of the University of Maryland.

-versity of Maryland: I avow in opposition to Mons.r Alibert, That this disease, mainly comprehended in a belt of the globe, bounded by two isothermal lines running near the tropics; is a disease varied in its character; never presenting uniformly the same phenomena, nor committing the same ravages.

You have read the various accounts of this malady by those who have witnessed its peculiarities in Cayenna, where it is called 'le mal rouge'. In the west-Indies, where it is designated as the Barbadoes leg. In Hindostan and the island of Java. In Goree and Guinea. In which latter, it is believed to be caused by an insect called the jijar which insinuates itself under the

cuticle. The Elephantiasis Graecorum, Tyriasis, and Arabica, of authors. All these are the same disease, modified by climate, diet, and constitutional diathesis of the subject: differing widely in their diagnosis from each other, and no doubt requiring different treatment.

I can testify to the diversified character of this complaint which fell under my own observation during my residence in Africa. Lepra tuberculosa Elephantiasis is strictly a sporadic disease in the kingdoms of Fez, & Morroco. In the northern part of Fez, it attacks principally the males and many varieties of it are there to be seen. Young men of eighteen are sometimes affected with it when it is

hereditary. In such cases it may and does last a life time without occasioning much inconvenience, never affecting the Spirits or digestion until the Subject approximates the natural period of his existence.

- Causes -

This disease has existed from time immemorial in Africa, Asia and the Australasian isles. The law of the Leprosy of Moses shows that he considered it a contagious affection, and the XIV chap. of Leviticus prescribes the religious rites necessary to be observed in order to be purified of it.

The observances for the plague immediately precede this chapter, and I think it may be inferred that these two diseases sometimes existed together in the same person: giving rise to a

hybrid partaking somewhat of the characters of both the parents, and that this is the Scall, or Scab, noticed by Moses "Ista est lex omnis leprarum, et percussurem leprem" /vide Vulgate. Levit. Cap. XIV. 54. 56./ which is yet to be found in those countries, afflicting both Jews & Mahomedans.

The Pentateuch, the plague, & the leprosy are the only legacies of Moses extant. The latter were his instruments of punishment. The prophets subsequent to him were permitted to use the same and I think that the apostles on two or three occasions exhibited their power in this way. In all these cases gentlemen, the causes were Supra nat. - urae vires positus, and I think that it will be conceded that such, do not operate in the present day. They belonged

to an age of miracles.

Nothing can be more discrepant than the opinions of various writers concerning the causes of this disease. Alard in his history of it assigns the following as the true causes, which he says appears to be proven.- viz- "L'impression soudaine du froid sur un corps echauffé par la temperature au milieu de laquelle il a coutoume de vivre. 2.me que la fraicheur pénétrante de nuits aidée par fois des courans d'air qu'on établit dans les appartmens. 3.me Que le passage brusque du chaud au froid sont les causes les plus générales de cette maladie." Now contrast these with the already cited causes of Baron Larrey; whose memoirs permit me to observe in passing have been translated, with that spirit & fidelity, by professor Hall, which so eminently characterizes

so eminently characterizes all of the performances of that gentleman / What can be more at variance !! — ?

But Monsieur Alibert, notre medecin philosophe, who claims the exclusive prerogative of defining & curing all diseases of the Skin. What causes does he give us? Here they are — viz — "Dans
, les lieux ou une extrême chaleur s'unit
, a une air humide, et chargé des mi-
, asmes marecageux; la lépre est surtout
, tres frequente. Elle abonde chez les
, peuples qui habitent l'Arabie, l'Egypte
, l'Abyssinie, et l'Amerique meridionale.
, Les isles de Java, de Batavia renferment
, des circonstances atmospheriques qui fav-
, orisent singulierement son activité. Elle
, devaste le Royaume de Siam parceque
, les terres y sont trés basses et presque
, Submérgées: les habitations sont situées sur

, les bords de la mer. On a souvent par-
, -lé de l'isle de Bourbon comme propre
, au developpement de l'éléphantasis; or
, cette isle est remplis de lacs d'eaux
, croupissantes. C'est la position malsaine
, de Martigues, et son voisinage des salines
, que y rendent la lépre commune: les
, evaporations continuelle de l'etang con-
, -tribuent singuliérement á pérvertir le
, tissu cellulaire" —

Marshy evaporations singularly perverting cellular tissue !! Gentlemen it would have been more reasonable for him to have aserted that marshy evaporations had singularly perverted his os-coccygis. His ignorance of geog-graphy is evident in every line. Where is the island of Batavia he speaks of? Do the inhabitants of Siam live only on the Sea board? When did we ever

hear before of the Island of Bourbon being filled with Lakes? Remplis des Lacs? 'Tis of volcanic origin and very elevated according to his own countryman Berardin de St Pierre who has perhaps given the best account of it. He tells us in the same breath that ~~it~~ Elephantiasis abounds in Arabia. True. But where are there any marshes to be found in Arabia? A climate where the birds of the air, and the beasts of the field, can scarcely find water eight months in the year to quench their thirst. I have shown that in the empire of Morroco this disease exists above the clouds and beneath the level of the sea. In the whole of that extensive country there is but one marsh and that is at Larache, not of much extent, and flowed by the tides.

I hold that in the human Sytem

different causes will not produce the like effects; that is, the same effects. Every disease has its particular cause. The cause of Lepra tuberculosa Elephantiasis, is found in countries extending around the world, and differing widely from each other in their geological characters, mineral and vegetable productions: but in point of average heat nearly corresponding.

Every thing which I have read concerning the causes of elephantiasis appears very contradictory. It seems to me that the cause (about which I am free to confess we are almost as ignorant as ever,) whatever it is, cannot exist without a certain degree of caloric which imparts to it, its activity. That its first effects are to impair the the vital energy of the lymph-

aties vessels. Render them in the inferior extremities incapable of overcoming the specific gravity of the fluids they contain, which by consequence is then forced out into the surrounding tissues, which gradually increases until it leads to a disorganization of the adjoining parts. One thing is certain gentlemen. I dont believe that this disease is in any way related to the universal, omnipotent, gastro-enteritis, causa magnum of Broussais. When we know more of the diseased physiology of the parts so affected, which can only be ascertained by post mortem examinations in countries where it occurs sporadically / and in no Mahomedan country will this ever be allowed / Then & not 'till then will we be able to give a more satisfactory ac-

-count of its causes. And until some one shall arise who will do this, and exhibit all the morbid phenomena appertain-ing to this malady we might argue in perpetuum without approximating a syllable nigher the truth. The Moors Algerines, and Arabs are Mahometans and fatalists. They know that their ancestors have been so afflicted from time immemorial, and they believe that themselves and their descendants will continue forever obnoxious to it.

The Jews in Africa believe that they will have it until Shiloh comes when he will wash away this and all other carnal impurities with which they have been cursed for thous-ands of years for stiff-necked disobed-ience. They look out for him now every year.

—

Diagnostics

This disease is seldom fatal in Africa before ten, twenty and even forty years of its existence in the patient; unless it is unfortunately ca-tenated with other complaints and then the contest is soon decided against the vitality of the Subject. I have seen old persons going about, attend-ing to their occupations both males and females beyond the age of Sixty with one leg prodigiously Swelled and ulcerated: and have been in-formed that they have been in that condition for twenty, or thirty years. But they always die of it at last.

One Variety of it, at Mogadore, Susa, & Agada, generate worms under the Skin, which hangs in circular folds around the leg. When this takes

place the patient of his own accord
Sometimes sits with the affected leg
in a tan vat. The lime and tannin
of which destroys the vermin, but
they are in a short time reproduced

The men are much more liable
to elephantiasis than the women
which made me at first suppose
that their mode of dress might
have some agency in producing it,
as the Scrotal of the men never
comes below the knee. It generally
makes its appearance in the small
part of one leg, never attacking both
legs in the same individual. Present-
-ing in one district enlarged tuberosities
of various shapes, deprived somewhat
of the sensibility of relation. Dry and
firm to the touch. In another, large
tumours covered with ulcers. In an-

-thers dry scabs which fall off and are soon replaced by others which in their turn give way. In some instances the foot retains its form for years, and when its tissues do give way to the superincumbent affection, it increases more in bulk in proportion to its size than the leg.

Treatment

The Mahomedans being generally Fatalists adopt no remedies either for this disease or the plague. But whenever any thing happens to their eyes so as that they cannot see or to their bellies so as they cannot eat, they follow any advice given for their benefit. As long as they have an appetite however they will eat, and elephantiasis never prevents them for it seldom affects the

Spirits or digestion until they begin to approximate the natural close of their existence.

Aretius who practiced in Rome towards the close of the first century advised the use of Sulphurous baths milk, soap, hellebore & emetics.

Aetius, Desfrancois, Fernel & others counselled castration because they never saw a woman have it.

Gurand of Montpellier recommends the use of Mercury. And the respectable old Galen on all occasions advised the use of the viper

It is asserted that in the West-Indies this disease has been successfully treated with Sudorific and antiscorbutic remedies. In the East Indies arsenical preparations are extensively employed by the Hin-

-dostanees. The same practice has been introduced into Cayenne.

I believe that the disease such as I saw it in Africa may be cured by a tight bandage, the use of iodine, keeping the bowels open and observing a regular and temperate regimen. The therapeutical prop. CDXIV of Broussais no body has ever had an opportunity of trying perhaps it might be cured by the means there prescribed.

By Saml. J. Carr
of
South Carolina
&c &c &c

Baltimore 3d. March
1834

To

The Provost, Trustees, Dean and

Medical Faculty of the

University of Maryland, This

inaugural dissertation is respectively

submitted for Examination, by

Catesby G. Brown

March the 8th 1834.

On Purgatives, - their properties, use and effects, - as medicines - or remedial means.

- There is perhaps no class of remedies so frequently resorted to in the treatment of diseases - as that described by Writers and Teachers under the denomination of Cathartics. It has been remarked by a distinguished Medical Writer; that there scarcely exists a malady in the whole catalogue of diseases, in which, at some Stage or period of its course, Cathartic means, are not indicated and employed.

However true this observation may be in fact - or however general may be the indications for the prudent employment of Cathartics in almost every condition of disordered health; we are not on this ground alone, justified in concludeing, that in the treatment of any disease, purgatives are to be employed empirically or heedlessly - nor without a cautious regard to the conditions of patients and the circumstances of the case.

Principles and experience must be the guides of the Physician in the employment of purgatives, equally as in the administration of other remediate agents.

It is the duty of the medical practitioner here, as on all occasions to keep in mind, that he is not operateing upon

inert matter, which can be impressed or modelled in exact conformity to his aim or intention, nor is he operating by mechanical forces, or means whose power he can calculate with precision, or control at will. On the contrary his experiments are to be made on a living system, singularly delicate and complex in structure, endowed also with high and peculiar attributes of impressibility and active, but limited, powers of respondence to excitant causes and agents.

If then, regard be paid to the natural inferences of a position so plain as to require no evidence of its truth, it will be sufficient to obvious, that notwithstanding, the familiar resort to purgative agents they too require to be exhibited with discretion and careful discrimination, no less than medicines of other claps and kinds.

It is equally apparent that the principles and rules, which are to determine the employment of purgative means, must in all cases be founded on a correct knowledge of the properties, powers, and mode of

action of the substances employed together with a carefull survey, and accurate discrimination of the ~~substances employed~~ condition, and capacity of the subjects of their influence.

The most simple definition which can be given of Cathartics, is that they are medicines which increase, in a greater or less degree according to the activity of their properties, the motions of the bowels, their contractile, or as it has technically called peristaltic action, and thereby produce purgeing. Cathartics are further defined, or classed, according to their comparative powers, and effects. In the latter mode of distinction among medicines of this class, Cathartics are arranged under certain denominations importing either their respective degree of activity, or the particular kind of evacuation they more especially promote. Hence the relative power of purgatives or their comparative activity is represented by dividing them into Laxatives, or Aperients, Cathartics properly, or full purgatives, and

drastics, or hypercathartics. These distinctions import simply the less, or greater, amount of purgative property manifested by different cathartics. The principal denominations designed to represent the kind of evacuations, which different purgative agents more particularly promote, are compound terms, signifying the nature or quality of the matter evacuated. Thus some cathartics are found to cause copious watery evacuations and these on that account are termed Hydroguges. Another kind of purgatives produce large discharges of Bile, and for that reason are entitled Cholagogues. These two are the chief distinctions, founded merely on the difference in the kind or quality of the matters purged off.

It is evident that all such distinctions as are thus recognised among cathartic agents, are in a considerable degree arbitrary, because the effects on which those distinctions rest are neither uniform nor invariable. Though derived from observation and experience and unquestionably true in part

perhaps in general, yet it must be acknowledged that the effects attributed to a particular class of the agents in question, are in some degree contingent, and are liable to be modified, or changed, by a variety of causes and circumstances. It is obvious that the effect of all medicinal agents is materially influenced by the susceptibility of the subjects to be acted on, and effects thus vary, with the varying aptitude on which the power and properties of their causes, are exercised. This qulification applies in a degree to all the distinctions, on which are founded both the general classification, as well as the the more special denominations, of cathartic medicines. Thus what are Laxatives in general, become purgatives on many occasions, and this happens either when such agents act on subjects more than commonly susceptible, or when the susceptibility of particular subjects has changed, and become greater than ordinary. The same is true of Cathartics or purgatives, which on many occasions are in effect, only laxatives, or aperients either when they happen to a class of subjects whose intestinal

system is more torpid, or less excitable, than in others, or to those in whom the natural susceptibility, has by any means been blunted, or lowered. Similar objections might be urged against the constancy or uniformity of the effects, on which the terms Hydrogogue, Cholagogue, &c have been appropriated to particular kinds of purgative medicines. The former often prove simple promoters of ordinary evacuations, and it is far from certain that bile can be made to flow abundantly, by the powers of the latter. But as there is doubtless some foundation for the distinctions above refered to, a general concurrence in the classification which has been established, and perhaps also, both convenience and utility, in the distribution which has been thus made, of the articles under consideration, there can be no adequate motive nor obvious necessity for innovation or serious dissent, in regard to that classification, or the particular terms which time and use has sanctioned. Nothing more was designed by the comments which have been made, on the received ~~order~~ arrangement of this order of

of medecines, than briefly to suggest in respect to that arrangement, considerations which ought never to be wholly overlooked in practice, nor disregarded, in the employment of the means in question. A still farther division or rather peculiarity of properties, among cathartic agents, has been very generally recognised by writers on purgative medecines, and much importance, has sometimes been attached to this peculiarity, or modification of their action.

It has been alledged that besides the difference of power among purgative medecines and a considerable diversity also, in the nature & quality of the evacuations they respectively cause, - that they differ very much from each other likewise in regard to the portions or parts of the intestinal canal, on which their action is more particularly exerted, thus it is affirmed that some cathartics act principally on the upper, and some again on the lower portion or tract, of the alimentary canal, in other words that some purgative articles

excite or stimulate mainly the small, and others the large intestines. This distinction has been extended so far, or made so precise, as to cause it to be asserted of some of the latter class of purgatives, that they act especially or even exclusively on the lowest, or extreme portion - the outlet - almost, of the intestinal tube.

Without calling into controversy, the facts affirmed in regard to the more definite or special action of particular purgative agents, it may be difficult to estimate properly the real importance which belongs to the knowledge of such a difference in the properties of purgatives, in respect to the part of the canal on which they more particularly exert their powers of action. The reality of such a difference among purgatives must be admitted, and it is perhaps equally undeniable, that the effects resulting from that diversity of action, among articles of this class, are to a certain degree uniform, and constant. Hence it would appear that occasions may frequently arise, in which a knowledge of this local or special action of particular purgatives, can be applied ~~with~~

with advantage, and rendered conducive to results, not otherwise attainable. By a judicious employment of purgatives with a reference to the particular of the alimentary canal, they more particularly stimulate or excite into action, important indications may often be fulfilled, both by the direct ~~influence~~ influence as well as by the indirect consequences of their peculiarity of impression. The property then which this distinction among purgatives has been preserved by all writers on the Materia Medica, is sufficiently obvious, and the only caution necessary on this head, is to avoid on the one hand, the reliance upon the properties attributed, (however justly in general) to particular agents, and on the other, a misconception of the manner, or cause, by which the particular operation of those agents is modified or determined, there appears a liability to erroneous interpretation of the facts alluded on this head, if at ~~the first sight~~ first view of the subject it should be supposed, that there exists any real or natural difference of susceptibility, in particular parts of the alimentary canal by which

certain purgatives happen to act, or are qualified to act on these parts especially, or alone. There is no sufficient reason for believing that there is any actual difference, either in the kind, or degree, of susceptibility to impression in different parts of the intestinal tube. In a state of health the endowments, and attributes, (the organic sensibility) of the alimentary canal is no doubt every where alike in kind, and most probably, in every part, equal in degree.

The variety of influence by different purgatives on particular parts of the intestinal canal depends upon the qualities of the various purgatives in respect to the facility or difficulty of solution in the menstrum in which they are exhibited, or in the fluids of the stomach and bowels. Until medicines are so dissolved or diffused, that their active properties or elements, can be applied to the living surfaces, they are comparatively inert, hence the more soluble articles act the more promptly, and when administered, the seat, or locality, together with the ratio or fulness of their effects is determined by the more or less perfect application of their active qualities.

Medicines thus act more or less quickly and powerfully on the stomach and bowels, chiefly perhaps in proportion to the different force or concentration the amount properly of their active qualities but very much also in proportion as they are more or less readily brought into a state favourable to the exertion of the properties by which they act.

Thus. purgative substances readily soluble and exhibited in the fluid form, begin to exercise their powers as soon as received into the stomach, they nauseate more or less, pass the stomach quickly, stimulate the upper bowels increase the rate and power of motion in these, and are thus carried onward, exercising their action on successive portions of the canal, until the whole extent of the tube has been excited, and forced evacuation or purging thus produced. It appears probable, that in the operation of purgatives which stimulate the stomach and upper or higher portion of the bowels very fully some degree of that excitement is quickly propagated (by sympathy, or organic association) throughout the canal and that increased susceptibility or a predisposition to become active, precedes the direct application of the cathartic substances to successive portions of the tube. This sympathetic excitement or increased impressibility may contribute to the rapidity with which some cathartics pass through the intestinal canal or cause purging.

When cathartics are giveing in a solid form, and more especially if they are but partially or slowly soluble in the fluids of the stomach and bowels, their action is commonly gradual, and generally tardy, though it may be at last very full or complete. Here the excitement of the bowels is gradually aroused and developed, as more and more of the purgative substance is brought by solution or diffusion into a condition to be active. Hence the reason why the stimulation of such purgatives is felt only after some time and then in the lower rather than in the upper bowels. one cause too, of delayed operation in this case may be the absence of sympathetic excitement or predisposition on the part of the lower bowels in consequence of the partial and tardy impressions made on the upper part of the canal.

Some purgative agents combine the quality of acting quickly, and after some time permanently, or of keeping up their purgative stimulation throughout the canal. This happens when purgatives contain either naturally or artificially two or more active principles, of different solubility, part of which are readily dissolved in the fluids of the stomach and bowels, while other parts undergo mixture or solution slowly, and these exert their active prop-

-erly gradually and on successive portions of the canal. There is yet another class of purgatives (composed of resinous matter chiefly) whose active properties are so far insoluble, that their operation when uncombined is very slow. and their purg-ative stimulation exercised most sensibly on the lowest portion of the great bowel, the Rectum more especially.

On the Medical employment of Purgatives.

Cathartics, or that class of substances whose primary action on the alimentary canal, has been briefly considered in the foregoing remarks, are used in medicine, with a two fold intention, or on two principle and leading ~~properties~~ indications. Cathartics, like Emetics are mainly employed with reference to their operation directly, as Evacuants, or Indirectly as depletives or Antiphlogistics. Besides these principal or general intentions, with which purgatives are employed, certain objects of direct or definite, than simple evacuation, or depletion are occasionally consulted, by means of the influence which some cathartics are known or supposed, to exercise indirectly or through the sympathy of particular parts, or organs, with the excitement they create in the whole or in some portions of

the alimentary canal. On such indications are founded the selection and employment, of particular purgatives, as Hydragogues Cholagogues Emmenagogues, &c. The remedial operation of Cathartics, may be distinguished as Direct and Indirect; primary and secondary. It is Direct as it respects their purgative or evacuant action simply, and thereby the removal of noxious matters present in the alimentary canal, or the two great accumulation of their common contents, from torpor, or deficient action of the bowels. Indirectly purgatives exercise a remedial agency, not merely, in promoting necessary or sufficient evacuation of the casual or common contents of the intestinal canal, but by causeing increased activity of secretion throughout the extensive tract of surface, on which they act, a very considerable drain, or deduction, is thereby made from the mass of circulating fluids. In this way an efficient, though indirect, depletion is procured by active purgation.

On this principle of action or this mode of remedial influence is based the application and utility of Cathartics as depletives or derivites, in general plethora, or when employed for relief of local congestion, or violent pains, the head for instance as Revellents or Repulsives.

It is in Fevers, and more especially in fever complicated by local inflamations, that the depletive derevative and revellent operation of Cathartics, is most prominently indicated, and most beneficially displayed. But here as every where in Medicine - prenciples experience and discrimination must regulate the employment of purgatives, as to obtain the full benifits of their influence, and avoid incurring the evils which may possibly ensue to their injudicious or inappropriate administration. Thus it appears that although Cathartics are excitants or Stimulants directly, or in their primary action on the Stomach and bowels. They are evacuants depletives and therefore Sedatives in their ultimate influence, on the general System. Generally speaking cathartics at first excite in some degree the action, not only of the gastric and intestinal surfaces to which they are immediately applied, but of the heart and blood vessels also, yet finally in their purgative effects, they diminish in a very sensible degre, the excitement and energy even of the circulatory forces. Thus final reduction of excitement and vigour in the heart and arteries is what is consulted by the employment of purgatives in fevers and in diseases of an inflamatory character, and the effect

they are capable of accomplishing by the joint influence of their evacuant and depletive powers. By the first, they correct, or obviate, the general irritation of the system arising from offensive, or excessive contents of the Stomach & bowels by the latter, they lessen the plethora of the blood vessels themselves, and in both ways contribute to the abatement of fever, and the relief of inflamation.

There is another point of view in which Cathartics are entitled to consideration as antifebrile or antiphlogistic agents. It appears probable that cathartics and some other this class of medicines more particularly produce important effects, as counter-agents of Fever and Inflamation in a manner or way, independant of their powers, as direct evacuants of the bowels, or indirect depletives of the blood vessels. The impressing powers of all agents taken into the Stomach, is exerted in the first instance, on the sensitive properties of the Stomach itself, and that impression is extended more or less perhaps in all cases to the System at-large. It follows of course, that the degree to which the constitution participates in all such impressions, will be more or less or greater, in proportion to its susceptibility as well as to the qualities, and force, of the impressing cause.

Many cathartics the milder as well as some of the more active, seize the Stomach with very little sensible disturbance of

that organ and therefore without inducing any or but little, constitutional or general impression. They pass along the intestinal canal also exciting the bowels into active motion, and produce moderate or even copious purging with but slight excitement or disturbance of the general functions of the nervous and vascular systems. There is a class of cathartic agents however, whose power and properties of general impression are much more sensibly felt, and far more obviously expressed. The first impression of the former or ordinary cathartics is usually attended by some sensible stimulation of the Heart, and a slight increase of arterial movement, and it is only after purging has ensued that the general excitement is reduced or falls below the previous or common standard. Being different after as the primary impression of another kind or class of Cathartic Medicines. The first effect of these is to depress in a very sensible manner, often in a profound degree the natural excitement or vigour of the stomach itself, and to produce at the same time a state of universal relaxation and languor, in all the vital and animal functions. Nausea, more or less profound, usually attends the first influence of this class of cathartics

on the Stomach, which often serves to some emetic effort. The Cerebral & nervous, the Sanguiferous and Muscular Systems, simultaneously betray a strong and general participation in the same disabling enterprise which has been acknowledged by the Stomach. In some cases this primary debilitating influence of cathartics, as evinced locally and constitutionally, is of temporary continuance, and soon elapses off, but it is the property of some cathartic agents, to maintain the evidences of their peculiar relaxing power, in a very sensible degree during the whole course of their action on the alimentary canal, It would appear then that some cathartics exercise a very efficient power of deposing vital excitement and energy of action, before their proper purgative agency is accomplished, and therefore in a manner independant of any positive depletion, They operate most sensibly as sedatives before they shall become obviously evacuants: It is perhaps, in no inconsiderable degree, to this depressing agency of certain cathartics upon the vital excitation which attends general fever, as well as over

the particular irritation which leads on to congestion, or sustains local inflamation, that those cathartics owe much of the powers efficiency which they often manifest as anti-phlogistic means. If it were made a question, on what depends the difference which so generally occurs in the train of evacuations produced by different cathartics. it would perhaps appear most probable that such diversity, is often or generally, referrible to the greater degree or extent of constitutional impression produced by certain purgative agents rather than to their special or peculiar property of influencing the actions of one system or organ, particularly or exclusively. That class of purgatives for example which promotes flow of bile, and hence are denominated Chologogues or Bilious purgatives, this order of cathartics comprehends those agents which are known to make a strong impression, both upon the gastric and general system, in full doses they nauseate and relase in a very sensible degree, and are depressing or sedative agents of great power & extensive impression. If the functions of the liver have been suspended & its proper secretions arrested or checked

up, these embarrassments of the organ depend either upon a state of irritation or congestion, probably both as they exist in the relation of cause & effect, and one is usually the consequence of the other. It is to this state of the liver then, that the general sedative and relaxing operation of the class of Cathartics under consideration is peculiarly adapted, and it is by this mode of influence, they produce a salutary relief of its embarrasments, and restoration of its offices. The irritation of the organ is quenched, and its congestion dispirated, and that not by a peculiar or special impression but as part of a general, or universal influence, of the relieving agent. There are other definite effects or influences, attributed to particular cathartics, which if traced to their true mode of causation, might be found to arise from a different operation of the means employed in the production, than has been currently believed. A general inquiry however, into questions of this nature would be too extended for occasions or exercises like the present, and I pass over further notices of such questions, in order to conclude this essay with a few general remarks on the indications and employment of purgatives in fever. When we contemplate the importance

which has long been assigned to purgatives, by medical authors and practitioners, and call to mind how much has been written and taught, on the qualities and effects of this class of medicines, we must feel some surprise, at the very great change, which medical opinion & practice, has undergone, and is yet undergoing, in regard to the true & natural application & value, of this class of agents. On such a review it is apparent that cathartic medicines have lost much, of that strong and general, though often vague & indefinite confidence, with which they were once regarded & employed. Whether it may prove in the end, that the change in this respect is for the better or the worse, there can be no doubt of the fact, that much less reliance is placed on purgatives, at the present day, and that they are now used with much less freedom, & for more simple & definite intentions, or objects, than was the general sentiment & practice, but a few years since. In no department of medical practice, is the change attended to, (the less general & less active use of cathartics) more remarkable than in their application to the modern treatment of Fever. Opinions now prevail on the nature & circumstances common in a degree to all conditions of fever, which tend very much to moderate the

the expectations with which purgatives are employed for its relief. And the same causes have almost annihilated the many distinctions once claimed so important, in relation to the specific or peculiar qualities & effects, of particular kinds of Cathartics, reducing the purpose of their employment & the motive for choice among them, in nearly all cases of fever, to the simple object of regulating their force of action (as evacuants or antiphlogistics) according to existing indications. On this principle, purgative medicines though still justly supposed to be of great importance & value, have assumed a comparatively diminished rank & interest, in the treatment of fevers; Instead of the first, or only, means of cure, in febrile affections, purgatives are now considered as but one, & often a secondary means, among the counteractive agencies by which fever is to be combated. In many conditions of fever indeed, their influence is often regarded as equivocal; & the propriety of their employment, or the extent to which it shall be carried, is not unfrequently a question of doubt & uncertainty. On this subject it is true medical opinion is apt in some degree unsettled,

and there is a want of that harmony of views, as to the proper ends & rule of purging, in fever, which is desireable on questions of so great importance. But still the current of professional sentiment, is tending constantly toward a more cautious & restricted use of purgatives — & active purgatives in particular in the treatment of fever generally. Whatever be the accredited Theory of Fever, whether it be regarded as essential, or contingent, in its nature, an Idiopathic or a symptomatic state it is now very generally admitted to be a condition in which the excitability of the System is morbidly exalted, and that a preternatural degree of organic sensibility & aptitude to irritation, is almost uniformly developed during fever, in the textures of all the internal organs, on which direct Medicinal impressions are to be made. The exact Nature & amount, or the true pathological character, of that Gastro enteric excitation, which is the usual concomitant of fever, is often subject of controversy, but its existence is generally recognized as a sufficient Motive for the guarded employment of excitant agents, which are now regulated, in

conformity, to indications suggested by its apparent amount or intensity. On these principles, more than any other rule of employment, is now believed (by physiological practitioners at least) to hinge the rational standard, for the choice, force or repetition, of purgative agents, in Fever.

Fever is both an excited & excitable condition, and if purgatives are anti phlogistics, or sedatives, in their indirect or secondary influence, they are, for the most part, irritants or stimulants in their direct or primary action. Then if purgatives, are necessary as is generally the case, in Fever, the qualities of the agents should be adapted as nearly as possible, to the circumstances of ~~Fever~~ in which they are to be employed. On this principle the least stimulating Cathartics are best adapted to the higher grades of fever, and the more excitable conditions of the system. Experience conforms this rule, & there is a general agreement among writers and practitioners in employing the less stimulating purgatives in the more inflamatory & more active forms of Fever. Or if in any such cases

the stronger cathartics, or for any reason advised or employed, it has been deemed proper & necessary to exhibit them in combination with agents whose qualities were fitted to overrule or counteract, their executing impression; agents of this description are found in the class of nauseants, & endowed sedatives, which diminish susceptibility, & thus prevent or lessen reaction. Besides the objections to stimulating or strong cathartics, (founded on the general excitation which attends the higher grades of Fever, and this, and still stronger objection to direct excitants, of every kind & to purgatives in proportion as they possess that property, presents itself in certain local characters of preternatural excitement, which are often revealed in the course of fevers of almost every grade, the lower, no less than the higher or more active. The seat of this more special, or more concentrated, or gastric susceptibility & excitation, is the Gastric, or Gastro enteric surface. Here the evidences of prominent irritation, are often palpably revealed in Fever, varying in distinctness & intensity, from the subacute, to the acute, or even pernicious

congesto inflamatory excitation. If the excitant property of Cathartics may render these agents of doubtfull adaptation or utility in fever of high General excitement merely, it is manifest how much more questionable their suitableness becomes, when their invitant action must be exerted on tissues imbued with a severe or excessive degree of morbid irritability: In this general State of the difficulties ment, which may embarass the employment of Cathartics in febrile cases, contrary indications appear to be involved. For however apparent, or forcible, the objections to all Stimulants, (and therefore to cathartics as exerting some primary stimulant action) in fever characterised by great local or General excitation, we can never avow altogether ~~be or never~~, the employment of purgatives even in the treatment of Fever thus characterised or complicated. Experience constantly inculcates the necessity & the advantage of their use, in nearly all conditions of fevers & fortunately Experience has also illustrated the possibility & means of deriving the benifits of their influence under circumstances requiring the utmost caution & delicacy in their exhibition. The General rule or before notice

as recommended by authors & practitioners, of adapting the least stimulating cathartics to the higher grades of Fever; is commonly sufficient to obviate injurious effects from the excitant properties of this class of medicines. Auxeliary means may likewise be simultaneously employed, tending to lower the rate of susceptibility to the primary stimulant impression of cathartics, and thus facilitating the attainment of the beneficial results contemplated by their indirect or secondary operation. In the cases of Fever included under the second head, those in which special irritation is localised in the seats of direct medicinal impression, — the Gastro intestinal surfaces, and even when concentrated thereto the extent of true Phlogosis, or a state not readily discriminated from inflamation itself, here too the least favourable apparently, of all possible circumstances for any amount of immediate perturbating agency, the necessity often exists for calling in the aid of Cathartics. The milder Cathartics at least as part of the correctives of Fevers

even when thus complicated. And happily every day observation appears us, that with due caution this may be safely done, & the benefits of this class of medicines, secured to any needfull extent, notwithstanding the apparent obstacles, or conflicting indications. The necessary alvine evacuations will require to be procured in cases like the present, not only by the least stimulating kinds of Cathartics, but even these must be exhibited in smaller doses than under common circumstances, & the proper quantity commensurate, by more frequent or longer continued administration. But there are collateral means also, of demonstrating both the actual irritation, and the morbid susceptibility of the organs which are to receive the first impression of our Cathartic agents, the due application of which, either before or contemporaneously with the employment of the latter, may prepare the organs for their reception, & obviate injury by their action. These means consist in effecting a depraved degree of congestion, and a-

lower grade of Sensibility, in the organs themselves by local depletion in their vicinity, with leeches or cupping; to which may be united the sedative influence of cold topically employed, & prudently regulated.

With these auxiliaries, properly directed, we have ordinarily little to apprehend from the excitant effect of the milder Cathartics, in those more evident, or more exalted forms of gastric or gastro intestinal irritation, which must be frequently encountered in Fever, & more especially, when from constitutional, or general (epidemic) causes, such fever is of an acutely irritative class or character. It would seem indeed, from the general testimony derived from the common results of a prudent use of evacuants in the forms of fever just attended to, those fevers complicated with more special & more severe degrees of gastric & intestinal irritations, [illegible] or subphlogosis, that the injurious tendency or influence of those agents is liable to be overrated. Either the excitable aptitude of the gastric textures, under the circumstances in question, is often more apparent than real, or impressions made by the milder [illegible] Cathartics on that susceptibility are not sufficient perturbing or permanent to be

spontaneously hurtfull locally, or participated in any serious degree by the general system. It is worthy of consideration also in respect to the use of cathartic agents in fevers of this class, or with these complications, that purgatives, or aperients properly exhibited, may become in their secondary, or general influences effective counter agents of the particular textural irritations, which seem to interdict their employment. Local or special excitation of particular textures, however originally developed are maintained or aggravated by the irritative reaction of general fever, & as Cathartics in their final operation exercise a sedative & calming influence universally or upon the whole system, the local evil may be quieted or even in as a consequence of the general tranquility thereby induced, This result in fact is frequently demonstrated, Moderate purging spontaneous or Medicinal has often caused the solution of irritative & inflamatory excitement in the gastric & intestinal ~~textures~~ textures.

To Doctor Sam'l Baker,
Late Professor of Materia Medica,
In the University of Maryland,
This Thesis, is most respectfully dedicated,
by his Pupil,
The Author.

Menorrhagia.

The frequency of occurrence and the dangerous tendency of Uterine Hæmorrhages render it peculiarly interesting to the medical practitioner.

And this interest is increased when he considers the discordant opinions entertained of its origen, and in to many instances the inefficacious modes proposed for its treatment. In the earlier writers upon this subject, we finds considerable diversity of opinion, not only with respect to the source of the disease, but also as to the Mode of treatment. While some were of opinion that the neck of the Uterus and a portion of the vagina furnishes the expended blood, wherever abortion or miscarriage did not take place. Others contended, that the discharge could only happen from a seperated portion of the placenta or membranes.

A few were content to rely upon the efforts of nature, and thought it might be even mischevious to intrupt her, or at farthest depended upon temporising applications to the vagina, or upon some inadequate

astringents by the mouth, while a much greater number insisted it was a most dangerous accident, and that the woman's safety depended upon the expulsion of the ovum, or of the premature delivery of the child, from which it would appear, how vague and uncertain their opinions upon this subject were,

We are not however to include in this censure the latter writers upon Midwifery From them we confess to have received much important information, and to be indebted to them for nearly all we Know of its mode of treatment, though we must at the same time declare, we do not regard any one of them as having brought into view all that we consider valuable, or necessary to be known upon this formidable complaint,

Uterine haemorrhage, is most likely to take place during pregnancy owing probably to the quantity of blood which is sent there for the

nourishment of the ovum,

Soon after the ovum is deposited within the cavity of the uterus, we find it connected through its whole extents of surface, with the internal face of this organ. Both the uterus and ovum contribute to this end, on the part of the womb we find it produces a soft spongy substance called decidua, on the ovum we discover its external covering or chorion shooting out innumerable vascular fibres, and when both unite serve as the bond of Union between the ovum and Uterus,

The efflorescence of the uterine surface like that which covers the ovum is decidedly vascular, and it would seem that these minute vessels intersect with each other after a certain period so finely that they cannot be easily seperated without rupture and thus it is only necessary to

understand that when the integrity of of either set be injured, there will follow a discharge of blood, proportionate to the extent of injury, the part of the uterus which it may happen, and the advancement of gestation, Should a large portion of the ovum be detatched in the earlier month the quantity of blood that may issue will be com=mensurate with that surface especially if it be from the body or fundus,

If the seperation takes place near the neck, the discharge perhaps will not be so abundant as this part is considered to be less vascular than the other portions of this viscus

The latter of these circumstances will be greatly influenced by the period of gestation. As a general rule it may be said that the quantity of blood which may be expended will be in proportion to the advancement

of pregnancy.

Causes of Uterine Hæmorrhage. In referring to Authors upon this subject we shall find a variety of causes are enumerated as capable of destroying to a greater or less extent the connexions between the placenta and uterus, and it is agreed by the greater number, that no considerable hæmorrhage can occur unless this happens In enumerating the remote causes of hæmorrhage, I shall name those which are generally believed capable of producing this effect and first of two short accord, Mechanical violences, Passions or emotions of the mind, Plethora

It was the opinion of many that the cord may be naturally or accidentally too short, in which case it might be the cause of hæmorrhage The bleeding proceeded from one of

the umbilical vessels at a portion which was folded in Kinds of Knots, which part yeldes from the accidental shortness of the funis. It must however be confessed by all that although this may be a cause of haemorhage, it must be a very rare one. It is not at all extra-ordinary that we should have only a few Cases of this Kind upon records, since we do not well perceive how it can take place.

Though the cords may be very short, still there must be great difficulty in breaking it by any effort the Child can make for if the waters be preserved the specific gravity of the Child and them will be so nearly in equilibro, that the weight of the Child may be con-sidered as next nothing; so that

when the cord is put upon the stretch the child will remove towards the force and thus destroy its influence. If on the other hand, the waters be discharged the uterus would almost instantly embrace the body of the child so firmly by its tonic contraction as to render it almost immoveable, and consequently it could not exert so much force as to injure the continuity of the cord.

Secondly. Mechanical violence, Passion or emotion of the mind, Pleathora, Each of these causes may produce the disease.

The whole of these causes have one operation in common upon the system they all induce an increased force of circulation which is generally considered as sufficient to produce the evil in question,

There is no period at which this may not take place after the first month of pregnancy, since it is presumable, that after the fourth or fifth week a union more or less strict is formed between the ovum and uterus by means of the Chorion and decidua; it must therefore, necessarily follow, that a separation may be effected Until about the fifth month this accident may happen to any portion of the ovum since, up to this period the placenta or what is to become placenta completly surrounds the ovum,

After this time, there is a portion of its surface that becomes transparent, and which uniformly augments, so long as the uterus continues to increase in capacity.

This transparent portion is what

is Comically called the membranes
and towards the full completion
of pregnancy they occupy a larger
surface than the placenta from
which they appear to emanate, In
Consequence of this, there is a
portion of the uterus from which
no hæmorrhage can proceed, so
soon as this transparent portion
shews itself. and this portion increases
as gestation progresses. and of course,
the source of flooding is confined
to that part which is covered by
the Placenta. for all the remaining
surface is lined by these mem=
=branes, and is incapable of fur=
=nishing such a quantity of blood
as shall be denominated a flooding,

As a general rule then, we finds
flooding in proportion to the ad=
=vancement of pregnancy, because
the vessels are larger, and in a given

9

time, yields a much greater quan-
=tity of blood, though the chance
of occurance is in the earlier
months.

Symptoms. Flooding comes on
with severe pain in the back
and extremities, absence of bearing
down about the Hypogastric
region, head ache, the Countenance
becomes pallid, Pulse full and
frequent,

In all cases then when there
is a Sanguineous discharge from
the vagina of a pregnant woman,
we should immediately treat it
with the utmost care, all
the essential indications should be
instantly complied with and no
time should be lost in temporising.

Whatever may be the cause of hæmor-
=hage, the essential indications are

First, to arrest the bleeding, Secondly, reduce pain if present, and thirdly prevent a recurrance of the hamorhage. These three points are constantly to be kept in views as the presentations of the ovum, or even of the woman is dependent upon them. Therefore whenever a woman begins with an hamorhage from the uterus. the sooner we can arrest it the better, every known remidy of efficacy is to be employed in succession. Should the antecedents ones fail of success; and every advantage must be given to the means by the Patient and her attendents, by a strict adherence to the directions enjoined,

It would be in vain for the physician to prescribe, if either the Patient or attendents run counter to his instructions, and in no case perhaps is this observance of more decided consequence

than in the Complaint we are now
Considering.

One of the first steps to be taken is
to command the most the most
perfect rest of body ands of mind
as far as may be praticable. The
patient should be placed upon a
mattrass, Jacken bottom, or even the
floor, The room should be well
ventilated; the patient should be
very thinly covered, her drinks
should be of the mildest Kind, such
as toast water, Cold balm tea, Lemonade,
ice water and the like, no Stimulating
substance of any Kind should be allowed
Care should be taken even in the administration
of food and drinks, that the patient
be not subject to exertions to receive them
they should be given to her while in a
Horizontal position, her food also should
also be of the same character with
her drinks, thin Sago. tapioca gruel

or panada, these can be made very palatable by the addition of a little lemon juice, Sugar or nutmeg. All animal food or the juices of them should be forbidden in the commencement of the flooding, let whatever be given, be given cool, absolute rest of every member of the body should be enjoined.

Having established a proper system for the repose of the Patient and the government of the attendent we should next turn our attention to the treatment proper for this disease, and first to the propriety of bloods letting. If there is high Arterial action bloods should be taken from the arm in a quantity proportionate to the exigency remembering we do little or no good by the operation if we do not decidedly diminish the force of Circulation: let the pulse

rather sinks under the fatigues than otherwise; its repetition must be regulated by circumstances, recollecting however, that hæmorrhage is sometimes maintained solely by exalted arterial actions,

The acetate lead has been recommended in doses of from two to three grains guarded by opium to be given every half hour, or hour, and less frequently as circumstances may direct or in case the stomach be irritated, a very efficient mode of exhibiting it is per anum, twenty or thirty grains may be dissolved in a gill of water to which is added a drachm of laudanum. this must be repeated if necessary in the course of an hour or two. Should the discharge be not checked, by proportionate injections of cold water cold alum water, vinegar and water. Or a large bladder filled with

ice and water may be applied to the region of the pubis.

The discharge from the vagina when very profuse, will not always yield to these remedies; and if it does not, it will very soon become very alarming, to save even a few ounces of blood is a duty, and sometimes is highly important. Should the means above recommended fail in moderating or stopping the threatning symptoms, no time should be lost in employing the tampon.

Pieces of fine Sponge of sufficient size to fill the vagina some have recommended it to be squeezed in sharp vinegar with a view to cleanse it, as also it may be imbued with this acid: it should be then introduced into the vagina, and suffered to remain until its object is answered if the Sponge be not at hand pieces of old muslin will answer the purpose

very well.

On Hæmorrhage after birth whether it be owing to uterine inertion or debility, or whether from plethora, our treatment should be shaped accordingly!

Your Ob.t Serv.t
Nicholas P. Hutchins

An Inaugural Dissertation

on

"Cholera Spasmodica"

Submitted to the examination of the Provost, Trustees and Medical Faculty of the University of Maryland on the 1st March 1834 for the degree of Doctor of Medicine

by Josiah N. Wilson

of Mississippi.

Among the various maladies which have pervaded our Country from its earliest recollection to the present Period, few, if any, have proven more triumphant in fatality than that besom of destruction, which winged its rapid flight athwart our soil during the Memorable fall and Spring seasons of 1831 and '32 — Denominated and known by the appellation of "Cholera Spasmodica" or "Indian Cholera."

Improper as this name is, when Considered in strict relation to the acknowledged Pathological Character of the disease, I shall nevertheless, for the sake of Convenience, retain its use in these Remarks.

I propose to take up this important, tho' interesting subject, not from any boasted feeling, which Prompts me to the Vain belief that I have made discoveries hitherto unknown in the Pathological Character, or Medical Treatment of this dread disease; — Not with a view to unfold Mysteries, far beyond the Ken of human ingenuity; Not with the still more sordid intention of misleading the Credulous, or unguarded observer, with Sophistry & hypothesis — but for the simple, and far more noble Purpose, of offering a few Candid reflections upon the subject, drawn from much observation, & some investigation made on the Causes, Character, and Progress of this disease as it Prevailed upon the Banks, and in the Valley of the Mississippi river, through the fall and Spring Seasons above mentioned.

In the prosecution of my purpose, I am aware of the heavy conflict of opinion afloat upon the world, upon the Etiology, Pathology and even Medical treatment of this disease — And at the same time, am not altogether ignorant of the high professional claims of a few individuals, whose observations have led to resulting conclusions essentially differing from my own. That a different inference may result, as the necessary consequence of a speculative observation, I am fully persuaded — but that the mere "ipse dixit" of professional rank, and high claims shall stamp the grand seal of authority upon every hypothetical effusion or speculative vagary I am unwilling to grant.—

Sometime during September 1831 — this disease found its way down the Mississippi river, and discontent with its ravages upon the densely populated banks, eagerly sought victims far in the interior. The whole atmospheric expanse, seemed highly charged with the deadly poison commissioned with destruction.— Upon the proudest summits, and in lowest vale the efficient cause was felt with equal force.— It sought out victims from every class of society — As well in the family of the humble peasant, as that of the haughty Connoisseur, did it leave the strongest attestations of its power — from the infant and the aged; — from the temperate and intemperate were its bold selections made.— And here, I would remark, that not a recovery was known in the class of intemperate individuals — And comparatively few recoveries among the blacks whose constitutions had been impaired by long exposure to the high solar heat of that climate.

it has been declared by a professional gentleman of Philadelphia, whose rank in the medical circle would better fit a better theory, that there are no premonitory symptoms in Cholera Spasmodica.- So far however as facts are concerned the position is unfounded and untenable.- Of 80 or 90 cases which came under my own notice, not one occured unmarked by strong, very strong premonitory signs of the approaching disease.- In short, but few individuals in the whole country escaped the visible signs of a strong predisposition to the disease- which were for the most part, diarrhoea with some uneasiness in the bowels- loss of appetite- indigestion to some extent- slight sensation of chilliness, alternated with partial heat frequently through the day- uneasiness at the pit of the stomach- constipation sometimes alternating with diarrhoea- unpleasant taste in the mouth & tongue slightly enveloped in a thin whitish fur- small somewhat frequent but corded pulse- intermitting cephalalgia, and sense of weakness generally preceded an attack of this disease when uninterrupted- The foregoing symptoms with some variation usually occured, yet not invariably, as some cases of which I heard, came on without any of them. The individual usually kept in port during the existance of some, or all of the abovementioned symptoms, in some instances for weeks prior to an attack.- I was informed by one or two Medical men, that they had seen a very few cases suddenly developed without any cognizable signs of predisposition, and may hap some rare instances of this sort, induced the gentleman alluded to, to make the bold and sweeping declaration already mentioned- But rare instances should never form criteria for the theorist.

I shall divide this disease into two stages only- the first I shall call the Spasmodic- and the second, the stage of Collapse.- The first stage was almost invariably ushered in with Violent Vomiting, succeeded in a few Minutes by Violent Purging of thin whitish watery fluid- In some few instances the fluid ejected from the stomach, contained very minute flocculi of a dark greenish hue, suspended in the watery fluid- Sometimes Purging preceded the Vomiting a few Minutes- And in some instances, intensely rigid Spasms and Cramps of the Voluntary Muscles was the first sign of attack- but for the most part, Spasms & Cramps quickly succeeded to the Vomiting & Purging, and were not the least ostensable symptoms in the disease. Coldness of the extremities, gradually travelling to the trunk- Small, quick Pulse, but not very frequent- rapid prostration of Strength, and wasting of flesh- Pale Parboil appearance of the tongue which was not unfrequently cold- great inelasticity of the whole dermoid tissue- Violent Spasms of the Stomach and intestines- Hurried respiration, and inability to bring a full inspiration- great Sensation of Heat in the Stomach & bowels, with intense and distressing thirst, manifested by a Continued cry for water, water, water- extreme restlessness with frequent attempts to get out of bed- great Heat over the region of the abdomen- The Countenance marked with extreme anxiety and strangely ghastly towards the Conclusion of the last stage- In most instances the Patient manifested no disposition to talk though evident signs of Sanity were manifested throughout the first stage, and not unfrequently untill the last moments. Such were the general characteristic Symptoms of the first stage of this disease.

The second, or Stage of Collapse, was easily recognized by an opressive and overwhelming aggravation of the foregoing Symptoms, with the single exception of the Muscular Spasms which gradually subsided to be succeeded by a cold clammy Sweat, Sometimes Colliquative sometimes the Surface merely bedewed, but always cold- almost total loss of Pulse, and Speech- entire Collapse in the external Capillary Vessels- and retreat of blood from every Part of the Surface to the large Vessels in thorax and abdomen- Constant distillidium of whitish fluid from the rectum, the Sphincter Muscles being relaxed- the small vessels in the Sclerotic tunic of the eye injected with red blood, as tho' labouring under a severe inflammation, and the tunica Cornea strangely glossy- Purple blotches over the Surface of the body- and sometimes so strongly developed over the face, as to obscure every appearance of the white man- Peculiar depression over the region of the Stomach, as tho' the Viscera had receded upon the Spine- Such were the Symptoms which generally characterized the Progress of Cholera in the South, tho' in some few Cases the Spasm was absent- in some the Colliquative Perspiration was absent, but Cases of this Kind was rare, and I incline to think that in those Cases when Spasms were not Perceptible in the Voluntary Muscles, they were evidently manifest in the Heart and diaphragm.- Tho' the Symptoms of this disease are numerous and well marked, they are exhibited but a short time, since it terminates in three to 36 hours.- longer or shorter in its duration, according to the greater or less intensity of the Cause, the constitution of the Patient, and other Collateral circumstances.-

I now come to that Part of my subject, not the least disagreable, since I am unavoidably brought into Collision with high and respectable authority - Analogical reasoning is at best unsafe, yet when Considered in relation to Cause and effect, will not unfrequently lead to clear deductions - Some of our Western Journalists have laboured to prove the Agency of Contagion in the Production of this disease; and not without impinging a similar impression upon the minds of many intelligent men - But circumstances, not only connected with the progress but intimately associated with the Pathological features of the disease, irresistably Combine to enforce upon my mind a different Opinion - If we view Contagion in strict relation to its specific "Modus Operandi" upon the Human System, as related by the mutual agreement of theorists, we are led to infer, that it Kills, or destroys every trace of susceptibility in the same System, to its subsequent reagency in the Production of the same disease - This fact, and so I must Call it untill it is successfully Controverted, does not obtain in the disease in question - so far from obtaining, an attack of the disease evidently predisposes the System to a second attack, upon the application of the remote Cause, even in a rarified form - Again, if we view specific Agents in relation to their Atmospheric Confines, previous observation has restricted their operation to Certain limits, and those limits have not generally been extensive - As an instance of this fact, we see Variola, Rubeola, Scarlatina, Pertussis & Parotidea restricted to territorial Confines, or Neighbourhoods, tho' Some, or even all of them may appear Sporadic in Some Seasons.

I will not presume to venture such premises, as an infallible criterion by which to judge of the inscrutable agencies of all Specific poisons- Yet we find a striking analogy existing in the character of the Agents Concerned in the production of these diseases-

The disease in question made its appearance in Vicksburg, a village situated upon the eastern bank of the Mississippi river, sometime in September 1831- Measures were forthwith adopted to suspend all communication with the Country, Notwithstanding the entire and instantaneous success of this measure, the disease appeared almost simultaneously 50 Miles in the interior, and in the person of a Negro man who had not been absent from his home for 3 Months, nor in the company of others than his family for weeks- In a manner similarly, it spread thro' our whole Country- Again, it was not unnoticed in every section of the Country where the disease prevailed, that many members of a family escaped, and hundreds of Nurses escaped who had stood over it for weeks & I heard of but one case in the whole Medical fraternity, tho' every thing in the Shape of a Doctor was up and doing- It not unfrequently passed from a large family of Negroes having attacked not more than 4. 6. or 10. tho' sometimes nearly all were prostrated.-

This does not appear to be the Characteristics movements of a Specific Contagion- When the disease first came among us, I was of opinion that it came under the character of a true Epidemic, and that the Poisonous Agent Concerned in its production lay inscrutably wrapt in the Circumambient atmosphere-

But some circumstances connected with the Progress and Nature of this disease, favoured a different view of the Subject - It was observed to spread with unparalleled, furious, and fatal rapidity through those districts of Country, notorious for Miasmatic exhalations. - and particularly adherent to the swampy margins of water Courses, now and then sweeping across the Country from Stream to Stream. It is true, it was not so strictly confined to particular neighbourhoods as our common Autumnal Bilious fevers; but equally as much so as those fevers sometimes are. -
With this fact before my eyes, collateral with a comparative view of a multitude of facts connected with the Pathological condition of the viscera, I was irresistably led to conclude that this disease was as strictly miasmatic in its character, as ever was Congestive Bilious fever. And that every individual exposed to a high range of Atmospherical heat or rather Solar heat, atmospheric vicissitudes & marsh effluvia was as evidently predisposed to an attack of Cholera. I am aware, it may be urged that this disease has existed in localities where Miasm never was known to exist - but I am not prepared to oppose every positive assumption - nothing else, could I conceive such a position, since a Cooperation or Concatenation of Circumstances are necessary to prove the existence of miasm The new notion that miasm never exists only when its signs are plainly and painfully felt is not altogether satisfactory, since we daily - witness Constitutions successfully resisting its deleterious influence even in a Concentrated form

Now we know that the specific action of marsh miasmata upon the human system is first impinged upon the brain, through the medium of the respiratory nerves: from the brain the impression is communicated to the Nervous System; the effects of this impression is direct debility- this debility is felt by every organ, by every tissue - We know that the heart, in common with other organs, labours under this state of debility, and is unable to throw out the blood in an exact ratio with its rapid accumulation at the right side of that organ, hence the result of heavy congestions in the large veins of neighbouring organs we also know that wherever a remora of blood occurs in any set of veins, the arterial connections of such veins is thrown into increased activity - Consequently we have the phenomenon, fever - Then I would say debility lays the foundation of Congestion, and Congestion lays the foundation of fever.- Now it is equally clear that this train of phenomena does most unequivocally obtain in Cholera Spasmodica fixing its Pathology, as I conceive, far within our reach -
From the vast quantity of venous blood destined to pervade the substance of the liver; its size, and Proximity to the heart, we readily perceive its extreme liability to Congestion, when the action of this latter organ is diminished, and this hepatic Congestion constitutes the grand Pathological characteristics of Miasmatic diseases.
From these premises which I conceive to be perfectly tenable, what are we to infer?- That two diseases Pathologically the same, are produced by the agency of two poisons essentially different in their Character?- That two diseases, not only identified in their action upon the system, but requiring precisely the same medical treatment to remove them, result from essentially different Agents?- I would unhesitatingly answer in the negative.-

I believe that the effects of the Agents employed in the production of Cholera Spasmodica, are primarily impinged upon the brain and nerves thro' the respiratory organs, inducing morbid debility - That consequent upon this morbid condition of the brain and nerves, Organic Congestions result to a greater or less extent - that this Congestion is primary located in the great Hepatic System - that the Liver is the grand organ in the disease - And from its morbid Conditions, alone emanate all the Single toned Pathological Phenomina, presented by the disease.

I full well know at the same time that I urge this, as my conviction upon this important subject, the most distinguished talents our Country affords, will arise in overwhelming torrents Against me - I allude to the force of that beautiful theory, which throws disease in the mucous tissue. Post mortem examinations of bodies dead of this disease, do most unequivocally exhibit, not only - active and acute gastro-Enteritis, but even a Sphacelated - Condition of the lining membrane of the intestinal tube almost throughout its whole extent - but I can see no reason, why this state of things should not obtain in all those highly aggravated forms of Congestive diseases in which the equilibrium of ballance of action is entirely broken up between the external and internal Capillary System of Vessels. In the disease before us, we find the Cutaneous Capillary Vessels almost entirely Collapsed, we find the blood almost stagnant in the large Veins within, the right side of the heart as it were drowned with this fluid, then what must result to the internal Capillaries but intense engorgement -

From this condition within we might reasonably anticipate an altered condition in the Vital Properties of these Vessels - I at once concede the point, that the Stomach suffers in Common with other organs under the Operation of the Predisposing Agents, and is thereby the more eminently prepared to display the Morbid Phenomena sympathetically impinged upon it; moreover, it is not unfrequent that we meet with the heaviest ravages, in organs symptomatically diseased. Again, a single intuitive glance at the treatment necessarily adapted to the removal of this disease, is not a little illustrative of its true character - for until some alteration is effected in the condition of the Hepatic System, there is a progressive and fixed determination to death - To me, there appears to be an unphilosophical adaptation of the remedies to this disease, if it actually depends upon Primary inflammation in the Mucous tissue - To say the least of it, the disease was perfectly ungovernable in the South, without the bold and energetic use of large & repeated doses of Calomel - Which are said to be incompatible with idiopathic Gastro-Enteritis.

It has been asserted by another Medical Philosopher of distinguished Professional Claims, that Cholera Spasmodica is not essentially different from our Sporadic Cholera Morbus. The striking similarity of these two diseases agreeable to my observation is just this - Cholera Morbus is Characterized by an active, tho' morbid secretion of Vitiated bile, whilst Cholera Spasmodica is as eminently Characterized by a total suspention of the secretory functions.

In the former disease you have more vitiated Hepatic secretions
than you sometimes know what to do with, and in the latter
you have not one drop secreted of any kind – So far, the two
two diseases are pathologically similar.
With regard to the remediate measures proper to be employed in the
treatment of this disease, much discrepancy of opinion prevailed
before its pathology was understood. When the disease first made
its appearance in the South, opinions similar to those of some of
our Northern Physicians were taken up, and large doses of
Opium combined with Camphor were mainly resorted to –
sometimes in a solid, sometimes a fluid form, and these were
repeated from time to time, accompanied with external
rubefacient applications, frictions &c with a view to
arrest the copious evacuations – but to the great mortification
of the Physician the Patient died – Not suspecting the inadequacy
of the remedy, death was rather charged either upon the violence
of the disease, or the untimely application of the supposed remedy –
And from views of this kind, many, very many individuals perished.
Some of our Southern Physicians supposed that the great "bugbear"
Consisted in an active morbid secretion of an Acid in the Stomach
and resorted to the various alkaline Preparations in Combination
with Opium – The real Condition of the Viscera was finally proven
by Post mortem investigation, and a clue given the Physicians,
at least, so far as related to the biliary System

As I have already remarked in the account of the Symptoms of the first stage, the Pulse was small and quick, this not generally very frequent, it was nevertheless, in most Cases that fell under my observation, almost always more or less tense or Corded, and whenever bloodletting was timely employed the Case was rendered more Manageable but but very few Physicians would Venture to bleed, in even the earliest form of the disease, for fear of sinking the Patient - For My own part I feel no hesitation in declaring my opinion that this disease often proved fatal for want of early bloodletting. - When this remedy was employed it was very evident that Medicines acted more promptly and more efficiently, altho' for the time no very perceptible advantage was observed. - After bloodletting 20, 40, or 60 grains of Calomel Combined More or less Opium & Sometimes Spirits in very small quantities, was administered, and repeated Hourly, Half Hourly, or at intervals of 2 hours (according to the urgency of the Symptoms) until a Manifest impression was Made upon the Secretory System of the biliary organs - In the Mean while, for the relief of the Cutaneous Capillaries, and the restoration of Heat to the Surface, extensive & Steady friction with Cayenn Pepper, Mustard, & Spts Camphr, or turpentine heated, were employed - To these were added cups over the Epigastrium, and dry Cuppings over the Spinal region - In some obstinate Cases, no perceptible change for the better was evident shorts of 20 hours, but more frequently in a much shorter time, and this change was for the most part evinced by a gradual cessation of the vomiting and Cramps

n after the gradual, but not entire subsidence of those symptoms
alvine evacuation would manifest a slight dark tinge, and
by degrees become darker and more consistent until about
the third or fourth stool which was black and thick as tar.
A general improvement always followed such evacuations
And it was the Physicians great care to continue the use
of Calomel in smaller doses until the functions of the
liver were restored, after which a small quantity of Castor
Oil was given, and the secretions subsequently watched.
It very rarely occured that the Calomel was a second time
called for after the secretion was once established. And
the remaining debility was removed by cautious dieting.

Josiah N. Wilson

Baltimore
1834

Inaugural Dissertation

submitted to the

examination of the

Faculty

Provost and Trustees

of the

University of Maryland

by

Lingard Aiken Hampton

S. of Ca.

for Degree of

Doctor of Medicine

Baltimore

March

1834.

Ono Hydrocyanic Acid

This interesting substance in its dilute state, was discovered by Scheele in the year 1782. Berthollet afterwards ascertained that it was composed of Carbon, Hydrogen, and Nitrogen, but this Chemist was prevented on account of the impurity of the acid from determining the proportions in which these constituents are combined, this Gay Lussac was enabled to ascertain by obtaining this substance in its pure state and by the discovery of Cyanogen gas. It appears from the experiment instituted by that Chemist for the purpose of ascertaining its composition that it is composed of one equivalent of Cyanogen 26, and one equivalent of Hydrogen 1 = 27. Or in volumes of one volume of Cyanogen and one volume of Hydrogen without condensation. Hydrocyanic Acid may be obtained perfectly pure from the processes which have been proposed by Gay Lussac, Robiquet and Vauquelin. The process of the last, which is the one adopted by the United States Pharmacopœia will be found more convenient and pro

ductive than any other. It consists in transmitting Sulphuretted Hydrogen through a glass tube placed horizontally, and containing in one third bi-cyanuret of Mercury and in the other two Carbonate of Lead and Chloride of Calcium. These substances are employed for the purpose of seperating from the gas the aqueous vapour and the sulphuretted Hydrogen with which it is always mixed. The tube must be connected with a receiver surrounded with Ice The Hydrocyanic acid generated in the first third of the tube is driven by gentle heat into the refrigerated receiver. The rationale of this process may be explained in the following manner. The two equivalents of Hydrogen from the Sulphuretted Hydrogen combine with the two equivalents of Cyanogen from the Bi-cyanuret of Mercury forming Hydrocyanic acid, while the two equivalents of Sulphur form with one equivalent of Mercury, bi-sulphuret of Mercury.

Hydrocyanic Acid when thus prepared is a colourless, transparent, and volatile fluid. Its odour is extremely pungent and has been compared to that of Peach blossom or bitter Almonds. Its vapour is inflammable

ble and burns with a blue flame. When brought in contact with the tongue it excites in that organ a transitory sensation of cold, succeeded by heat and irritation. Its flavour when diluted with water resembles that of the bitter almond. It cannot be preserved longer than two weeks even when excluded from light and moisture without being decomposed, on account of the tendency of its elements to form new combinations It may be kept for sometime by confining it in bottles covered with black paper

It is somewhat remarkable that Hydrocyanic Acid prepard from Sulphuric acid and Bi-cyanuret of Mercury may be kept for many months even when exposed to light. The products of the spontaneous decomposition of this substance are Ammonia and a dark substance which consists of carbon and nitrogen. Its vapour when submitted to a red heat is partially decomposed with deposition of charcoal and release of Cyanogen, Hydrogen and Nitrogen gases. — Hydrocyanic Acid is an extremely feeble acid. It reddens Litmus paper faintly. Unites with nearly all the

salifiable bases forming salts termed Hydrocyanates It is incapable of decomposing the carbonates. It boils at 79° Farenheit and congeals at zero. Its atomic weight is 27. The specific gravity of its vapour 0.9374. Its density 0.9476. It is capable of supporting a column of Mercury 0.38. Many remedial agents derived from the vegetable Kingdom owe their efficacy and their deleterious properties to the Hydrocyanic acid they contain It has been detected in the different parts of the peach tree viz ine its branches, leaves, and blossoms, and the leaves of the Prunus Laurus Cerasus, or Cherry Laurel, in the cluster cherry, bird cherry, the bitter almond, the Mountain ash and many other plants. Many able chemists maintain that it does not exist ready formed in these substances but is the result of the process for obtaining it. Having thus briefly described its Chymical properties we now come to consider its physiological action, the means of de-

tecting its presence, and of counter=
acting its deleterious effects.

Many
physiologists have maintained that
this agent exerts its influence
through sympathy alone while
others affirm that it affects the
animal economy through the
medium of the circulation. This
latter view has been adopted by
Emmert who has founded this
opinion on the results of the fol=
lowing experiment. He found on
introducing Hydrocyanic acid, viz=
to the hind leg of a dog after hav=
ing tied the abdominal aorta that
it did not act until the ligature
was removed. To this experiment of
Emmert's, Christison one of the advoc=
ates of sympathetic action, replies
that the maintenance of the cir=
culation is essential to the right
discharge of all the functions
and among the rest, to all the
acknowledged functions of the
nerves, consequently the non
action of the poison when a

ligature is applied on a vessel ~~which~~ which supplies the part where the poison lies is no proof that the poison acts through the medium of the blood. It is evident from the above observations, that no argument can be adduced in favour of action through the blood, In order to explain the action of poisons ~~when~~ when introduced into the veins, it has been affirmed that the internal vascular surface like other membranous structures is supplied with nervous filaments, that on these poisonous agents make their peculiar impression which is conducted along the nerves to remote organs. But it must be shown, before this explanation can be received that the nervous expansion of the internal membrane of the blood vessels is more sensible to the influence of poisons than the sentient extremities of nerves. The strongest argument which may

be adduced in favour of absorp=
tion is the rapidity of its ef=
fects. It appears from the exper=
iments of Phillip, Robiquet and
Coullon that many poisons
and among the number Hy=
drocyanic acid, are capable of
making certain Local impres=
sions of a nervous nature inde=
pently of organic change. The
first of these experimentalists
found that when Hydrocy=
anic acid was brought in
contact with the intestines of
a living rabbit that the mus=
cular contractions of the intes=
tine were instantaneously par=
alyzed, and that the general
system remained unaffected
sometime after. this occurred
Results similar to this from the
same poison were obtained
by Coullon and Robiquet.
Many other instances of a sim=
ilar impression might be ci=
ted, but those which have been
adduced shew the incorrectness

of the assertion that no poison independently of organic change is capable of making any local impression of a nervous nature.

Hydrocyanic acid acts with greater velocity through serous than mucous membranes It also acts with great rapidity through the cellular tissue, but with less through this than serous membrane It has no effect when applied to the trunks or divided extremities of nerves or to the cut surface of the brain. Hydrocyanic acid surpasses in rapidity of action any of the known poisons It is so amazingly energetic that one atom dropped on the tongue or into the eye of a dog will destroy the animal almost as instantaneously as a stroke of lightning. It affects all animals in the scale of creation from the worm up to man. All are destroyed by it and

similar manner. The symptoms induced by the dilute acid, are as follow. Sensation of weight on the top of the head, rapid pulse, salivation, succeeded by insensibility, which continues five or six hours and then rapidly disappears. The above symptoms were experienced by Coullon. A knowledge of the symptoms excited by a fatal dose of this acid may be acquired from a case recorded by Hufeland of a man who when apprehended for theft swallowed an ounce of alcoholic Hydrocyanic acid. He was observed to stagger and fall apparently lifeless. The physician who instantly saw him found his pulse and respiration for sometime imperceptible, After a brief interval his expiration was so forcible that the ribs seemed drawn almost to the spine The eyes were prominent and animated as if alive. The use of the medicinal acid for sometime has been known to occasion ulceration of the mouth and salivation. These effects from the Going

continued use of the medicinal Hydrocyanic acid have been remarked by Drs M'Leod and Granville — Post mortem appearances — Post Mortem examinations will generally exhibit the following appearances. The blood will be found congested in the right ventricle of the heart and the veins. The blood fluid of a bluish or cochineal colour. The eyes open, glistening, and apparently animated The blood usually exhales a Hydrocyanic odour. The veins of the brains will be sometimes found in a state of turgescence.

We have now to consider the tests of Hydrocyanic acid. These have been investigated by Lassaigne, Turner and Orfila. They are its odour, the salts of copper, and the salts of the protoxide of iron. The odour of the acid has been considered by Orfila a very delicate, and characteristic test. The Sulphate of Copper forms with the acid a when neutralized by a little Potassa a greenish precipitate which is rendered almost white by the addition of a little Hydrochloric acid. It forms, when rendered alkaline by the addition

of a little Potassa, with the salts of Iron a grayish green precipitate which is changed by the addition of Sulphuric acid to the colour of Prussian blue. According to Orfila, Nitrate of Silver is a very delicate and characteristic reagent for Hydrocyanic acid. It forms with the dilute Solution of this acid a white precipitate. which may be distinguished from the other white precipitates of the salts of Silver, by its insolubility in Nitric acid at ordinary temperatures, and by its solubility in this acid at a boiling temperature. This precipitate when heated emits a gas which is recognised as Cyanogen Gas by its rose coloured flame. The presence of this acid may be detected in mixed fluids by immersing a slip of bibulous paper, moistened with pure potassa in the Suspected fluid for a few minutes and then by touching it with a solution of the protosulphate of iron. The application of this salt will produce the usual blue colour on the paper. Or it may be detected by the following process. Filter the mixture, neutralized with Sulphuric acid if alkaline then distill the product

from a vapour bath till an eighth part has passed over into the recipient. Then test the distilled fluid with the proto-sulphate of iron in the usual manner. Both of these processes will fail to detect the acid after eight days. This may be owing to the disappearance of the poison by evaporation or decomposition.

The treatment now remains to be described. This consists in the administration of certain agents which operate by exciting in the system and action counter to that induced by the poison. This object may be accomplished by the following remedies, namely, Chlorine, Ammonia, and the cold effusion.

The first of these substances was proposed by Riaux as an antidote for Hydrocyanic acid. The accounts of its efficacy by Riaux are confirmed by the experiments of Orfila who considered it one most efficient antidotes that can be employed. The second was proposed by Dr John Murray of London and is considered by many to be a very efficient antidote. Our treatment then consists in the administration of Chlor-

ammonia and the cold affusion
ency. It may be proper to state that such
is the energy of this poison that we shall
generally fail to counteract the effects
of even ordinary doses.

Lingard A. Frampton
of South Carolina.

To the

Medical Faculty

of the

University of Maryland

1834

To the Medical Faculty of the University of Maryland.

Gentlemen,

You and each of you will be pleased to accept my most humble acknowledgments for the instruction and uniform kindness received at your hands; and be assured, that your moral worth and professional abilities, will ever stimulate me to prove worthy of the profession of which I am now a candidate. Having arrived at that period of life, when time is estimated at its proper value; when a young and growing family calls loudly on me, and entreating them in the paths of virtue; and being on the eave of seeking in the western wilds some retired refuge, where I may devote my remaining years in my professional and paternal duties I must beg to urge

these considerations on your accustomed leniency, a
my humble apology for now appearing before you a
candidate for an honour which I feel almost unwo
to receive, but receiving, hope with constant exertions
render not unworthy of those from whom I will solicit a
grant.

With these few remarks urged alone by their necessity
and worth, permit me to subscribe myself your

Most Ob. Servant,

James Power.

Eupatorium Perfoliatum

The peculiar form and arangement of the leaves on this plant render it very easy of distinction at sight by the most inexperienced botanist. It flowers from May to Sebtember, and is found from Nova-Scotia to Florida. It inhabits mea-dows and boggy plains, growing most frequently in bun-ches, the stems being connected by horizontal roots. Its common names are, Thorough Wort and Thorough Wore Bonset; the Eupatorium belongs to the first order of the class Syngenesia or compound flowers; it is a general favourite, and will be probably highly esteemed for its Medicinal powers. Wildenow enumerates seventy one Species indigenous to America those indigenous to our States are all plain looking plants; the stems of this plant are erect, round, hairy, branched at the top only, the leaves which are perforated by the stem are rather perfoliate than connate, but of one entire leaf, having its veins proceeding at right angles from four quarters of the stem, two of them being situated in the place of the sup-posed junction; the upper leaves are however generally divided into pairs; they are serrated, pale underneath and hairy especially on the veins, and are all surrounded with

through down; but another discriminating mark arises from
the manner in which they are perforated by the stem; hence
the vulgar names Thorough Wort, Boneset. Professor Barton
says the plant derived the name boneset from the relief it
afforded in a certain singular catarrh or species of influ-
enza which prevailed forty years ago, and was denominated
break bone fever. The root is perennial, somewhat horizontal,
the stems erect, from two to four feet high, round, and very
hairy, and divided towards the top into decussating branches,
so as to form, when in flower, a flat dense fastigiate corymb:
the stem is generally greyish green, but often purplish
towards the base: every plant of the Eupatorium has an
intensely bitter taste, combined with a flavour peculiar
to the plant, but without astringency or acrimony, the
leaves and flowers abound in a bitter attractive matter in
which the important qualities of the plant seem to reside;
this principle is soluble in water and alcohol; it forms copious
precipitates with many of the metallic salts, such as muri-
ate of tin, nitrate of mercury, nitrate of silver, acetate of lead.
A dissertation was published a few years ago on this plant

by Dr. Anderson of New York, in which he gives the details of numerous trials made by him on different parts of the plant, He says that the active properties of the plant reside in greatest quantities in the leaves, and that its virtues are readily obtained by means of a simple decoction.

I made use of it in Intermittent on the Spring Gardens near Baltimore, in the year 1827. There were four cases of Tertian, and three of the Quartan type, which I treated successfully with the Eupatorium, the cure took place at as early a period as could have been expected from Bark Recipe Eupatorii perfoleati Ʒi aqua bullientis Oj was infused for two hours, then strained; I ordered a wine glass full to be taken every two hours, cold; I have also given it in powder from twenty to thirty grs. As a medicine, the virtues attributable to it have been various and powerful; but it is impossible to read the accounts which are given of it, without indulging the belief that favouritism or fashion has had some share in decking it for public view. Dr. Parker at Elkton used it frequently and extensively, and gave it every

trial

which a favourable impression of its powers would induce them to make. He said he deemed its properties, on the one hand much exaggerated, but believed it to be a highly important article, when administered in those affections to the symptoms of which its peculiar virtues are applicable. I have intimated that the properties of the Boneset indicate its medicinal virtues ~~etc etc~~; the Tonic and diaphoretic effects are most deserving; it is somewhat stimulant, but this effect is transient. It has been prescribed in some violent catarrh, attended with fever, and its stimulant effect has not been so considerable as to be imperious in those cases. The country Physicians in our country use it as a substitute for bark. Its true tonic effect is most easily ensured by giving in substance twenty grs. of the powdered leaves and flowers, from four to six times in the course of twenty four hours. It has been said to cure acute Rheumatism; I gave thirty grs. to a lady in Elkton much troubled with Rheumatism. I made inquiry whether the pain was increased by the heat of the bed or abated by its warmth; as soon as I found it to be inflammatory, I made use of the lancet, at the same time

keeping my fingers on the pulse to ascertain when a sufficient
quantity was drawn, for I consider it one of the most impor-
tant points in the practice of Medicine to bleed judiciously;
after I gave the Eupatorium, she was much relieved next
day, but it is more than probable that its sweating powers
might have been enlisted in conjunction with blood letting;
but I think it might be more safely administered in
the chronic state. Thacher speaks of it in gout, and re-
commends external application for the relief of pains, It
has been represented by various authors, most of whom
have copied after others, as a Tonic, Cathartic, Diu-
retic, astringent and Obstruent, as capable of curing almost every
disease, and thereby leading the unwary and inexperienced
practitioner to depend too much on its reputed powers, The
whole plant is intensely bitter, it is also possessed of some
slight astringency; when dried, it has a peculiar and not
disagreeable odour, Dr Chapman is of opinion that the flow-
ers are more active than the leaves, but Dr Eudowson says the
leaves are more active than the flowers; but the little experience
I have had, has led me to form the opinion that there is

no difference in the bitterness, or activity on the system,
between the leaves and flowers; either will answer; the
stems also may be used, which are nearly as efficacious
as the other portions, consequently the whole plant may
be used for medicinal purposes.

Dissertatio Inauguralis

De Concoctione

Praefecto, Curatoribus, facultatique,

Terrae Mariae Universitatis

Per Carleton C. Sams Subjecta

Pro Gradu Medicinae doctoris.

Anno Domini

1834

De Concoctione,

Animantia omnia propria discernunt Phænomena, quæ ordinatè disponuntur, et vitam constituunt; primo, quod animantibus est ordinariis rerum præsertimque caloris et humiditatis legibus obsistendi;
2° res aliegenas materiæ suæ assimilandi;
3° assimilata in ordine certo componendi;
4° Speciem propagandi;
5° Morte animam finiendi:
Peculiaria ea animalibus cum plantis communia sunt. Sed porro animalibus sentiendi et movendi facultates sunt.

In corporis structurâ, texturæ diverse modificatæ et copulatæ sunt; nonnullæ ordinæ definito digestæ, et in formas peculiares figuratæ sunt; Cæterarum, aliæ alio ordine aliasque in formas. Digestiones hæ definitæ, formationes organicas constituunt. Et formationes singulæ formâ peculiari figuratæ, organum (quod est et instrumentum nuncupatum) faciunt. Est cuique organorum suum agendi officium, quod functio quoque denominatum est.

Phænomena quædam affinitate peculiari peractionem ad eandem concurrentia, functionem constituunt. Functionum tria sunt genera; functiones corpus alendi; Functiones, ad speciem propagandam pertinentes; Functionesque relationis, quæ sentiendi et movendi sunt; quæque discrimen magnum inter animalia et plantas faciunt. Functiones nutritionis, corporis atomos alternâ vice labefactionis et renovationis occupant. Partes destructæ abiatæ sunt et recentiores depositæ, velocitate dispari in corporibus diversis, etiamque in corporibus iisdem, variis existendi temporibus. Scaturigo perpetua unde atomi novi suppeditent alimentum est. Nullo alimento nisi prius soluto sive confecto corpus alitur. Ut alimenti solutio illa peracta sit, actio constituta est, concoctio denominata.

In Corporibus simplicioribus, simplicissimè peracta est. Concoctionis organum, in plantis radix est. Succorum tribus, quamvis earum nonnullæ sine radice, sine organo omni distincto sint, aere et humiditate ali videntur.

Ab his ad simpliciorem animalium structuram organicam, progressio vix sensibilis est; licet functiones additas certe exhibeant. Ab animalibus simplicissimis, alimentum per membrana externa parietes sine ore manifesto, aliquove concoctionis apparatu, imbibitum est. Animalium proximi ordinis formatio, alvei principia alimentarii suscipit. His superficies interna stomachus diffusus est; idemque in ordinibus aliis, donec ad animalia magis organicè formata venimus. Animalibus principibus, functiones distincta concoctionem componunt; cibum masticandi, deglutiendi, solvendi, et e cibo soluto partem alituram deligendi; quibus excretionis functio addenda est.

Ad concoctionem ministrat masticatio, cujus instrumenta, varia secundum animalis structuram et cibi genus, ad animalia omnia, quibus concoctionis est apparatus distinctus, data sunt. Animalia multa, os, dentes, maxillas musculis potentibus armatas, linguam et glandulas salivarias masticationis organa habent. Facultas est ori, labiis malisque

formato, undique et quoque versus sese mov=

=endi. Dentium et maxillarum forma et
locus valdè diversi sunt. Et mirum est
quam accuratè, animalium singulorum
moribus conveniunt; qua de causa indicia
a dentibus comperta, physicorum systemati
[Zoologia dicto] basim faciunt. Animalibus mul=
=tis animalia cibum præbent, et aliis veg=
=etabilia; cæterisque sicut homini sunt victui
ambo. Masticationis organorum opus est modif=
=icatione quæ cibi varietati congruet. Duo et
triginta humani dentes, in maxillâque positi,
sunt; ut homo plantis simulatque carne vivit,
sic dentes humani animalium quæ vegetab=
=ilibus et eorum quæ carne vescuntur, dentium
characterem participant.

Lingua masticandi et deglutiendi funct=
=ionibus, valdè utilis; tota, membranâ muc=
=osâ circumvoluta, musculosa, cibum pon=
=endo quò facilius dentes dividant, aptissima.

Glandulæ salivariæ tres utrinque sunt,
Parotidea, quæ in genâ est posita, submaxilla=
=ris et sublingualis. Saliva e glandulis per

ductus numerosos ad os deportatur.

Organa deglutiendi, lingua, Pharynx, gulaque sunt; linguæ jam descriptæ pars posterior, inter mediis palati cameris jungitur pharyngi. Pera sive bursa magna et musculosa infundibulo similis est pharynx, cujus foramen majus cum ore, et cum gulâ minus conjunctum est; cujusque musculi sese contrahendo, ipsam deprimere et imminuere possunt. Gula sive Œsophagus, nomine ab officio suo derivato, tubus musculosus et longus qui parte pharyngis infimâ natus, per collum descendit, et in stomacho terminatur;

Tunicas tres distinctas habet; primam texturâ spongiosâ; fibris musculosis secundam; membranâ mucosâ tertiam et internam. Tunicæ musculosæ, laminæ fibrarum duæ sunt, longitrorsus una et transversè altera digesta; unde curtandi et coarctandi est facultas ad hujus organi functionem mirè aptata. Membrana mucosa cum oris velamine continua, longitrorsus plicatur, plexus tamen gulâ distensâ non videri possunt:

Semper liquore mucosâ lubricata est;

Spallanzani in animalibus nonnullis, gula partem infimam, dicit liquorem secernere similem liquori in stomacho secreto.

Organorum ordine proximus est stomachus, ventriculus ipse in quo cibi conficiuntur, vel solvuntur. Viscus hoc (et Celsus viscera universim denominat, quaecunque in ventre et pectore latent,) in abdominis parte superiore obliquè ponitur. Hominis adulti ventriculus ad octantes tres capax est. Huic sunt extremitates duae, curvatura duae, ostia duo et tunicae tres. Sinistrorsum posita extremitas magna, stomacho gradatim dextrorsum diminuto ubi extremitas parva est. Margo inferior est curvatura magna; margo superior curvatura parva est; curvaturâ parvâ, ventriculi ostia ponuntur. Ostium superius et sinistrum quod gulae et stomachi junctura est, cardiacum appellatum; et dextrum, inferius ostium appellatum, extremitatis parvae finis est.

Stomachi tunicarum trium externa,

membrana omnia abdominis viscera ob=

=tegens, peritoneum est. Fibrarum muscul=
=osarum, quæ fibris similiter digestarum
est tunica media. Fibræ quæ longitrorsus
ponuntur, ab extremitate magnâ, ad par=
=vam procedunt, et utrâque parte curvaturæ
parvæ corpus musculosum validumque
formant: Lamina transversè digesta,
alterâ firmior potentiorque est; hinc est
quoque stomacho se contrahendi, capacitatem
que minuendi potestas. Actione utrâque
quacunque in viscere sint, lentè agitantur
posthemoque ostio inferiori educuntur. Ostium
inferius, pylorus appellatus, fibrarum
musculosarum, cartilaginisque est annulus,
qui, foramen, dum cibi in ventriculo solva=
=ntur et conficiantur, accuratissimè claudit.
Cibus confectus fit stimulus specialis quo
solùm valvæ aperiuntur ad cibos solutos
emittendos: potestas illa fibris musculosis
peculiaris, animalium dotium mirabilis=
=sima est. Stomachi tunica tertia, mucosa
et cum tunicâ gulæ internâ, continua,

cæteris villosior, flexibus multis, rugis

appellatis integitur. Aquâ membranâ, reddunter secreta, quibus hujus organi functio maximè perfecta est.

Textura spongiosa mollis, quæ tunicas complectitur, venis, arteriis, nervisque confertissima; quâ de causâ stomachus maximè sensilis, omnium peractionum corporis particeps, et simul cum organis singulis mutuo affectus est. Immo quasi centum commune est, ubi functiones omnes connexas, conspicere sit.

Viscera chylofacientia, jecur et pancreas, auxillaria intestina parva, principalia sunt. Intestinum totum, tubus longus et sinuosus est, ab stomachi ostio inferiori ortus, in anum terminatur. semper ejus longitudo et capacitas animalis uniuscujusque cibo adaptæ; breviores in ~~[illegible]~~ animalibus carnivoris, sed in eis, quæ herbis vescuntur longiores capaciores que. In viro adulto corporis longitudinem sexies, in infantibus decies est. Intestina in majora minoraque divisa;

Intestina minora, sive lactes, tunicas tres,

scilicet peritonæam, musculosam, et mucosam habent; quæ ut in Stomacho, structa et digesta sunt; tunica mucosa tamen crebro et transversè plicata, valvulas conniventes, format; Duò tunica superficies magis diffusa majus per spatium cibum confectum lactiferorum vasculorum oribus confert. Lactes in partes tres divisæ, duodenum, jejunum, et ileum: primum è capacitate ventriculum alterum appellatum et cæteris firmiùs ad corpus alligatum est.

Tunica mucosa magis rugarum formâ quam valvularum conniventium plicatur; Firma et valida est tunica musculosa; duod= =enum, intervallo digitorum trium crassitudine, ab ostio Stomachi inferiori, ductu communi choledoco, et ductu pancreatis, perforatum est.

Hic apparere, lacteorum ora non numerabilia incipiunt. Enim succo alimentario, chylo, in duodeno facto, jejuni et ilei officium est, spatium ad succum illum absorbendum, extendere; quâ re membrana mucosa valvulis conniventibus et oribus absorbentibus confertim consperta est.

Pancreas, parte abdominis posteriore et

superiore, inter ventriculum et vertebras spin=
=ales est glandula, quæ liquorem, succum
pancreaticum vocatum, ductu distincto secernit.

Jecur glandularum maxima, liquorem
peculiarem, bilem denominatam, secernit.
Liquores ambo, ductibus propriis ad duod=
=enum deportantur.

In visceribus excretionis vel intestinis
magnis divisiones tres sunt: Cæcum, colon,
et rectum; Cæcum ab Ilei parte inferiore or=
=tum amplificatione subitâ, etiamque membrana
mucosa plicaturâ, exire sed non redire excrementum
sinente, distinguitur; valvulus hic locum indicat,
ubi intestinorum minorum functiones cessant.
Discrimen magnum et physicum inter has
duas alvei alimentarii partes est, quòd in intes=
=tinis minoribus succus alimentarius evolutus
absorptus est et per intestina majora excrementa
exportata sunt. Horum formatio ad longis=
=simè tenendas et tempestivè temporibusque
ordinatis fæces expellendas adaptata est.

Concoctionis in homine animalibusque propinquis organa descripsimus, sed digestiones illius modificationes aliæ animalibus cibos alios depascentibus sunt; enim animalibus herbas pascentibus quarum copia magna alimentum parvum præbet stomachi divisiones quatuor sunt. Pabulum sine mastication deglutitum in divisionem primam vel panticem transit, hinc ad reticulum sive divisionem secundam; nunc valde mollitum ad os, ut masticetur versum redit; postquam masticatum sit gulam descendit et in divisionem tertiam, omasum transit, e quo in abomasum vel divisionem quartam, stomacho hominis in structurâ et functionibus simile, venit. Avibus carnem pascentibus stomachus membranaceus est; avesque granis vescentur musculosum habent stomachum cujus fibris vis et potestas magna est.

Organa supra descripta concoctionis apparatum constituunt; nunc oportet organorum

contemplemur functiones; quas ut explicemus primum concoctionis phenomena insigniora considerabimus, et deinde aliquorum medicorum sententias monstrabimus.

Concoctio actio est quâ alimentum quibusdam mutationibus subjectum ad corpus alendum aptatum et allatum sit. Solidorum concoctio et Liquidorum inter se differunt; alimentum solidum, ore receptum, salivâ mistum maceratumque dentibusque comminutum, per organa deglutiendi, transit. Huic postquam in misturam pulposam, quæ chymus dictus mutatum fuit ad duodenum egreditur; ubi bilis et succi pancreatici accessione in partes duas disjunctum est. Pars una succus alimentarius sive chylus, altera fœcula vel excrementum e corpore ejiciendum.

Masticatio concoctionis functio prima, mechanica est. Prius non venticulum ingreditur cibus, quam mollitus comminutusque fuerit. Membrana quæ ora integit, copiam magnam, folliculique mucosi, et glandulæ sal-

=ivarie liquidorum, cum cibo commiscendam,
secernent.

Plerique opinati sunt salivam plurimum
valere in cibum præparando ad concoctionem,
sed experimentis medici illius philosophi
Beaumont compertum est opus salivâ non
esse nisi ad deglutitionem.

Deglutiendi mechanica non, sed functio
vitalis est; cibus non suo pondere decidit, sed
fibrarum musculosarum vi compulsus in
æsophagum descendit. Actio ista primâ facie
simplex et facilis, profecto multum complic=
=ata est. Enim ad illam perficiendam mus=
=culis plurimis et organorum multorum
consensu opus est. Quando mastication cibus
satis præparatus linguæ actione transmit=
=tatur ad pharyngis marsupium, a quo
sublato et musculis propriis expanso, accipitur;
nunc a pharynge contactûs stimulo contrac=
=tâ, in gulam per lubricatam ire compellitur;
per gulam expansam et deinde contractam
coactus ad stomachum pervenit.

Cibus quum stomachum inîsset ad extremitatem majorem progreditur ubi strenuissimè perfectum est. Experimenta a medico W. Phillips tentata, stomachi extremitatem cardiacum in animalibus post cibum captum subitò mactatis interdum persolutam esse docuerunt. Alimentum a circulo ad centrum solvitur et quanto parietibus propinquiùs tanto citiùs perfectum est. Cibi novissimi semper in massæ centro, cum prioribus non commixti inveniuntur: partes alimenti quæcunque solutæ nunc ad extremitatem minorem leniter adeunt; et stratus externi quum solutæ essent per pylorum priores propelluntur. Sed stomachi succus solvens adeò massam totam pervadit ut quando stratus externæ solutæ sint centrum etiam impendiò solvitur. Cibus in contactû cum succo gastrico perventus, instanter solvi cœpit. In tempore, ab horâ unâ ad horas quinque, differente, omnino perficitur. Animalibus nonnullis tempore longiore opus est: Alimentum in stomacho perfecte solutum

chymus vocatur.

Chymus, pulposus, cineraceus et fere liquidus, odore acri, et gustu acerbo eodem per totam massam genere, sed spissitate varioque colore. Gradatim ad extremitatem minorem compulsus circa ostium inferius: Et copia necesse est quadam prius accumuletur quam exire potest; copia plerumque est ad uncias tres vel quatuor. Pylori potestatem propriam, solum chymo concedere supra memoravimus; Et enim, si ad ostium inferius cibi insoluti pars aliqua adiret, doloris sensus creabitur; Sed cum Chymus copia necessaria praeparatus sit Stomacho exire statim sinitur duodenum inire: ibi cum bili succoque pancreatico confertim mistus intignitur maturatur. Brevi in duas partes sejunctas, quarum altera liquida alba ab massa segregata, et succus alimentarius, vel chylus fit: altera non alimentaria sed excrementum faculentum, pulposum, flavum, intestinis majoribus per anum ex corpore ejiciendum.

Ambo per lacteas provehuntur: Chylus jam sanguinis facultatem insignem habet; enim ad tunicam intestini mucosam adhæret, coag=ulationis phenomenon exhibetque. Rem ali=mentariam cum tunicâ mucosâ contiguam esse oportet, ut eam lacteales absorbentes ex=ciperent. Chylus quadatim absorptus evan=escit priùs quam ad intestina majora ad=venire potest.

Ad fluidas non, quæ ad solidas parandas functionibus, opus est. Liquida neque tempore longo in ventriculo manent neque cum succo gastrico miscentur. Medici Tiedmann et Gmelin qui rem istam indagavêre, liquida ab stomachi vasculis absorpta et ad jecur pro=vecta, per viscus hoc circulata esse, precisè declarunt..

Sententiæ variæ, vetustæ noviores-que, concoctionis naturam explanare, sunt. Explanatio experimentis plurimis sustentata, est cibum modis chymicis solvi.

Stomachus liquorem peculiarem secer=
=nit, qui acido muriatico abundat et cibi sol=
=utionem peragit. Spallanzani et Stephens
iri clari atque illustres experimentis suis
cibum solvendi facultatem esse stomachi
liquoris exactè demonstraverunt; quod et
Beaumont ille nostras confirmavit. Hujus
fluidi facultas non ad mollitiam rerum
neque ad texturam teneram pollet. Nanque
res duras et tenaces scilicet membranam et
cartilaginem liquor stomachi facile solvit.
Tametsi fructuum tunicas teneras, lini, et
gaspipii fibras delicatissimas solvere non po=
=test. Liquor gastricus putredinis obsistendæ
potestatem habet. Enim Spallanzani in
phialis duabus, alterâ aquæ plenâ, et
liquoris gastrici alterâ, carnis portiones in
temperieque eadem posuit; tempore post brevi
caro in aquâ putrefacta erat; quæ in stomachi
liquore posita, partim soluta, haud aliter atque
in ipso stomacho fuit post. Inde quoque facultа=
=tem ipsam peculiarem extra corpus habet.

Haud dubium itaque chymum a liquore in stomacho secreto omnino perfectum esse. Stomachus ut liquorem hunc secernat, valere et bene se habere debet. Animalium tribus multa et magna sunt quæ animalia solum consumunt.

Tribus alia longèque majora et hominibus ditiores, vivere videntur, ut vegetabilia in animalia convertant, sicque cibum animalibus structurâ eximiore præditis præbeant. Quomodo res inanimæ in plantas, eodem modo, plantæ in animales convertuntur, ut animalibus excelsis concoctionis functio expeditior sit.

Particulas plantarum ultimas simplicia, et animalium multa esse: particulas quas proportionibus variis conjunctis animalium et plantarum proxima principia stare supra dictum est. Ex vegetabilium principiis proximis quæ alimenti reddunt plurimum, ea sunt gluten, copiosè, et farina, maxime in tritico inventa: deinde saccharum et oleum aliaque alimenti aliquod præbent.

Ex animalibus principiis proxima, fib=
=rinosa, gelatinosa, albumenisona, et princip=
=ium ossmazone sunt quæ alimenti plurimum
dant. Ab alimento tantum nutrimenis
præbitum est quanta chyli principia co exis=
=tunt. Res multa nutrimen copiosè red=
dunt quæ sunt difficiliter concoctæ: Ea difficul=
=tas, cibis nutritioribus, cum minus nutritis
commistis, maximè diminuta est. Res sunt
aliquæ, nullum nutrimen habentes, sed
quæ ad concoctionem non nihil valere
ducuntur; condimenta appellantur.

Animalia cibi unico isto vescuntur
genere quod ad structuram et mores aptat=
=um est. Sed supremo animalium om=
=nium homini, cibo mixto opus est. Medicus
Stack qui experimenta usque adeo extendit
donec studiis periit, cibi speciem non esse de=
monstravit quæ unica corporis vigorem et
vitam ipsam diu sustinere possit. Verum
est hoc etiam de animalibus domesticis
nonnullis. Forsitan cibi unius generis

usus longus et perennius stomacho sic inertiam facit ut cibus quamvis alimentarius, solvi non potest.

Carnis generum variorum quid facilimè concoquatur; expertum fuit; caro porcina citius quam cetera concoqui comperta; deinceps ordine ovina, vitulina, postremoque caro bubula, fuerunt.

Homo integra valetudine adultus bis, si valetudinarius quater vel quinquies de die cibum sumere oportet. Enim stomachus debilitatis plerumque cibum facilius concoquit, quum sæpius et modicum acceperit. Per infantiam et puritiam stomachus cibum citius concoquit sæpiusque postulat. Enim suppeditatione rerum copiosâ opus est corpus adaugens ad construendam. Exercitatio modica sub dio stomachum acuit; nihil autem magis cibi appetentiam et stomachum ipsum, quam occupationes sedentaria in oppidis occlusis, et domicilijs malè ventilatis, infestum est. Tamen multi hujusmodi vitam

agere condemnantur, quibus vultus pallidi membraque tabescentia nimium planè consectaria pessima indicant; Fama, opes, scientia licet acquirantur, sed fructus etiam illi pretio nimis carissimo comparantur, organis illis deletis sine quorum sanitate, corpus neque otium vel voluptatem possidet.

Carleton C Sams.

g.l.